

CONTRACT

SPECIAL PROVISIONS

Project No.: SP-0134(2)11

Name: 2700 NORTH; I-15 TO WASHINGTON, OGDEN
MAJOR WIDENING

County: WEBER

Bid Opening: JUNE 24, 2003
Date

MANDATORY PRE-BID CONFERENCE

Date: June 11, 2003
Time: 10:00 a.m.
Location: UDOT – Region One
169 North Wall Avenue
Ogden, Utah 84412-2580

Conference attendance is a requirement for submission.



2002 - U.S. Standard Units (Inch-Pound Units)

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State-Green Book

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I. 2002 Standard Specifications

The State of Utah Standard Specifications for Road and Bridge Construction, U.S. Standard Units (Inch Pound Units) CSI Format, Edition of 2002 with Changes One and Two included applies on this project as a static Specification Book.

Refer to Part II (List of Revised Standard Specifications) and Part XI (Special Provisions) for other project specific specifications.

II. List of Revised Standard Specifications

Change One – Included in 2002 Standard Specifications

Revised August 29, 2002

Section 00570 Articles 1.2 A 69, A 71 b (deleted)
Section 00727 Articles 1.1 D; 1.5 B; 1.9; 1.10; 1.16 B, C; 1.18 B
Section 01574 Articles 1.2 B
Section 02721 Articles 1.2 D (added), H (replaced), I (deleted); 1.6 B1; 2.1 A Table 3; 3.2 C
Section 02741 Articles 3.8 E 2 a, b
Section 02821 Articles 3.1 A
Section 02892 Articles 1.5 A, B
Section 02936 Articles 1.4; 1.5 C
Section 03152 Articles 1.2 P, Q; 2.2 A, B
Section 05120 Articles 1.4 A (deleted), 3.3 A
Section 16525 Articles 1.6 A, B

Change Two – Included in 2002 Standard Specifications

Revised December 19, 2002

Section 01561 Article 3.1 A
Section 02075 Article 2.7 A
Section 02372 Article 2.1 A 4
Section 02455 Article 3.3 B 2
Section 02785 Article 3.2 C
Section 02861 Article 3.3 A
Section 03055 Articles 1.2 P (inserted), 2.3 B, 2.4 (deleted), 2.7 A 1 a-e (added), 2.7 B 2 (added), 2.8 A 1 a, 2.8 A 2 (deleted), 2.9 A3, 3.2 A Table, 3.2 C, 3.7 A 3, 3.8 C 1, 3.9 A-B, 3.10, 3.11 B 1, 3.11 B 3
Section 07922 Article 2.1 Table 1

Change Three

Revised February 27, 2003

Section 01355 Article 1.3 A 3

Section 01721 1.4 C deleted and moved to Measurement and Payment document

Section 02222 Changed title from Site Demolition-Pavement to Site Demolition - Concrete, A, 3.2 Title, 3.2 A

Section 02224 New Specification

Section 02316 1.2 A, D, I added, 1.3 added, 1.7 B, C, D, E, F, G added, 3.9 A added

Section 02455 3.3 B 2 (corrected error from change two)

Section 02721 1.2 Related Sections added, 1.3 H and I added, 1.7 B, 1.7 F deleted, 2.1 B added, 2.2 deleted, 3.1 Title changed, 3.2 B reference added, 3.2 E added

Section 02741 1.4 C6a added, 1.4 H, Table 3, 2.4 A, 2.4 C, Table 9, 2.5 B 1-3, 2.5 B 4 added, 2.5 D, 3.1 A1 deleted, 3.2 C3 added, 3.7 D1, 3.9 B4, 3.9 B5 added, 3.9 E note added

Section 02744 Entire Section deleted

Section 02745 1.4 A9

Section 02785 1.2 C and D added

Section 02892 Added Articles, 1.3 N, O, Y, 1.5 D, 2.4 I, 2.5 C, D, E, 2.6 B3 - B6, 2.6 C, 2.16, 2.17, 3.11 and Revised Articles 3.5 F and Table Number, 3.5 G and Table Number

Section 02896 2.1 A, B and 3.1 A drawing number corrected

Section 16525 1.2 H

III. List of Revised Standard Drawings

Change One

Revised December 19, 2002

AT 7	Polymer Concrete Junction Box Details	12/19/2002
BA 1A	Precast Concrete Full Barrier Standard Section	12/19/2002
BA 1B	Precast Concrete Full Barrier Standard Section	12/19/2002
BA 3	Cast In Place Constant Slope Barrier	12/19/2002
BA 4B	Beam Guardrail Installations	12/19/2002
BA 4C	Beam Guardrail Anchor Type I	12/19/2002
CC 6	Crash Cushion Type E Sand Barrel Details	12/19/2002
DG 3	Maximum Fill Height and End Sections for HDPE And PVC Pipes	12/19/2002
DG 4	Pipe Culverts Minimum Cover	12/19/2002
EN 4	Temporary Erosion Control (Drop-Inlet Barriers)	12/19/2002
GW 1	Raised Median and Plowable End Section	12/19/2002
PV 2	Pavement Approach Slab Details	12/19/2002
SL 13	Traffic Counting Loop Detector Details	12/19/2002
SN 2	Flashing School Sign	12/19/2002
SN 4	Flashing Stop Sign	12/19/2002
SN 5	Typical Installation For Milepost Signs	12/19/2002
SN 8	Ground Mounted Timber Sign Post (P1)	12/19/2002
ST 1	Object Marker "T" Intersection and Pavement Transition Guidance	12/19/2002
ST 7	Pavement Markings and Signs at Railroad Crossings	12/19/2002
SW 3A	Precast Concrete Noise Wall 1 of 2	12/19/2002
SW 3B	Precast Concrete Noise Wall 2 of 2	12/19/2002
SW 4A	Precast Concrete Retaining/Noise Wall 1 of 2	12/19/2002

Change Two

Revised February 27, 2003

GW 2	Concrete Curb and Gutter	02/27/2003
GW 5	Pedestrian Access	02/27/2003

IV. Materials Minimum Sampling and Testing

Follow the requirements of the Current Materials Minimum Sampling and Testing Manual:

Materials Minimum Sampling and Testing Manual reference can be found from the UDOT Web Site at:

<http://www.dot.utah.gov/esd/Manuals/Materials/MaterialsSampling.htm>

**For UDOT employees the Manual can also be found on the Shared Drive at:
\Shared\Engineering Services\Manuals\Materials (W drive for the Complex
and R drive for the Regions)**

V. Notice to Contractors



NOTICE TO CONTRACTORS

Sealed proposals will be received by the Utah Department of Transportation UDOT/DPS Building (4th Floor), 4501 South 2700 West, Salt Lake City, Utah. 84114-8220, until 2 o'clock p.m. Tuesday, June 24, 2003, and at that time the download process of bids from the USERTrust Vault to UDOT will begin, with the public opening of bids scheduled at 2:30 for MAJOR WIDENING of 2700 NORTH; I-15 TO WASHINGTON, OGDEN in WEBER County, the same being identified as State Project No: SP-0134(2)11.

Federal Regulations:

Wage Rate Non-Applicable.

Project Location: 2.9316 Miles of Route: 134 from R.P. 11.36 to R.P. 14.29

The principal items of work are as follows (for all items of work see attachment):

HMA - 3/4 inch
Granular Borrow
Untreated Base Course 3/4 inch Max

The project is to be completed: in 190 Working Days.

Mandatory Pre-bid Conference: June 11, 2003, 10:00 am, UDOT - Region One
169 North Wall Avenue
Ogden, Utah 84412-2580

Conference attendance is a requirement for bid submission.

Other Requirements:

All project bidding information, including Specifications and Plans, can be viewed, downloaded, and printed from UDOT's Project Development Construction Bid Opening Information website, <http://www.dot.utah.gov/cns/bidopeninfo.htm>. To bid on UDOT projects, bidders must use UDOT's Electronic Bid System (EBS). The EBS software and EBS training schedules are also available on this website.

Project information can also be reviewed at the main office in Salt Lake City, its Region offices, and its District offices in Price, Richfield, and Cedar City.

Project Plans cannot be downloaded or printed from the website unless your company is registered with UDOT. Go to UDOT's website to register. Unregistered companies may obtain the Specifications and Plans from the main office, 4501 South 2700 West, Salt Lake City, (801) 965-4346, for a fee of \$20.00, plus tax and mail charge, if applicable, none of which will be refunded.

Prequalification of bidders is required. Prior to submitting a bid, the bidder must have on file with the Utah Department of Transportation a completed and approved contractor's application for prequalification. Department processing time is 10 working days from receipt of properly executed documentation.

As required, a contractor's license must be obtained from the Utah Department of Commerce.

Each bidder must submit a bid bond from an approved surety company on forms provided by the Department; or in lieu thereof, cash, certified check, or cashier's check for not less than 5% of the total amount of the bid, made payable to the Utah Department of Transportation, showing evidence of good faith and a guarantee that if awarded the contract, the bidder will execute the contract and furnish the contract bonds as required.

The right to reject any or all bids is reserved.

If you need an accommodation under the Americans with Disabilities Act, contact the Construction Division at (801) 965-4346. Please allow three working days.

Additional information may be secured at the office of the Utah Department of Transportation, (801) 965-4346.

Dated this 24th day of May, 2003.

UTAH DEPARTMENT OF TRANSPORTATION
John R. Njord, Director

VI. EQUAL OPPORTUNITY (STATE PROJECTS)

Selection of Labor:

During the performance of this contract, the Contractor shall not discriminate against labor from any other State, possession, or territory of the United States.

Employment Practices:

During the performance of this contract, the Contractor agrees as follows:

The Contractor will not discriminate against any employee or applicant for employment because of race, religion, sex, color, national origin, age, or disability. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, religion, sex, color, national origin, age, or disability. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoffs or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the State Highway Department setting forth the provisions of this nondiscrimination clause.

The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, religion, sex, color, national origin, age, or disability.

The Contractor will send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding, a notice to be provided by the State Highway Department advising the said labor union or worker' representative of the Contractors commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further State contracts.

The Contractor will include the provisions of this Section in every subcontract or purchase order so that such provision will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the State Highway Department may direct as a means of enforcing such provisions including sanctions for noncompliance.

VII. Bidding Schedule

Utah Department of Transportation

Bidder's Schedule

Bid Opening Date: 6/24/2003

Project Number: SP-0134(2)11

Project Name: 2700 NORTH; I-15 TO WASHINGTON, OGDEN

Description: MAJOR WIDENING

Funding: STATE

Region: REGION 1

County: WEBER

#	Item	Description	Quantity	Unit
10 - ROADWAY				
1	00830001U	Equal Opportunity Training	13000	hour
2	012850010	Mobilization	1	lump sum
3	01315001*	Public Information Services	1	lump sum
4	01554000*	Traffic Control	1	lump sum
5	015540010	Traffic Control Maintainer	360	calendar day
6	015720020	Dust Control and Watering	9000	1000 gallons
7	01721001*	Survey (Specialty Item)	1	lump sum
8	018910020	Move Mailbox	5	each
9	01892001P	Reconstruct Catch Basin	25	each
10	01892004*	Reconstruct Valve Box	30	each
11	018920050	Reconstruct Manhole	37	each
12	01892006*	Reconstruct Monument Box	3	each
13	02056001*	Granular Borrow	121700	cubic yard
14	02061004*	Underdrain Granular Backfill	3200	cubic yard
15	02075001*	Geotextiles - Separation	96400	square yard
16	020750020	Geotextiles - Erosion Control	100	square yard
17	020750030	Geotextiles - Drainage	25800	square yard
18	02076001*	70 Inch Pipe Casing	100	foot
19	02076002*	24 Inch Steel Casing	25	foot
20	02079001*	8 Inch PVC Waterline	690	foot
21	02079002*	10 Inch PVC Waterline	2320	foot
22	02079003*	8 Inch Ductile Iron Waterline	290	foot
23	02079004*	10 Inch Ductile Iron Waterline	2000	foot
24	02079005*	4 Inch PVC Secondary Waterline	1300	foot
25	02079006*	12 Inch PVC Secondary Waterline	460	foot
26	02079010*	4 Inch Gate Valve	1	each
27	02079011*	6 Inch Gate Valve	1	each
28	02079012*	8 Inch Gate Valve	4	each
29	02079013*	10 Inch Gate Valve	12	each
30	02079020*	Fire Hydrant	4	each
31	02079021*	Relocate Fire Hydrant	2	each
32	02079030*	Loop 6 Inch Waterline	1	each
33	02079031*	Loop 10 Inch Waterline	1	each
34	02079032*	Reconnect Service Line	4	each
35	02221001*	Remove Waterline	1040	foot
36	02221002*	Remove Valve	13	each
37	022210025	Remove Manhole	5	each
38	022210030	Remove Catch Basin	8	each
39	02221004*	Remove Concrete Structure	9	each
40	02221005*	Remove Block Wall	65	foot
41	022210050	Remove Tree	23	each
42	02221006*	Remove Buried Fuel Tank	1	each
43	02221007*	Remove Building, Basement, and Foundation Parcel # 0134:26	1	parcel
44	02221008*	Remove Building, Basement, and Foundation Parcel #0134:47S	1	parcel

Note: Item numbers ending with "" or "P" identify a change to the Standard Specification, Supplemental Specifications or Measurement and payment. Read all related documents carefully.

Utah Department of Transportation

Bidder's Schedule

Bid Opening Date: 6/24/2003

Project Number: SP-0134(2)11

Project Name: 2700 NORTH; I-15 TO WASHINGTON, OGDEN

Description: MAJOR WIDENING

Funding: STATE

Region: REGION 1

County: WEBER

#	Item	Description	Quantity	Unit
10 - ROADWAY				
45	022210080	Remove Fence	14110	foot
46	022210095	Remove Pipe Culvert	2380	foot
47	02222000*	Remove Concrete Sidewalk	1370	square yard
48	02222001*	Remove Concrete Driveway	490	square yard
49	02222002*	Remove Concrete Curb	110	foot
50	02222003*	Remove Concrete Curb and Gutter	6560	foot
51	02222004*	Remove Asphalt Pavement	61420	square yard
52	02222005*	Obliterate Road	1400	square yard
53	022310010	Clearing and Grubbing	1	lump sum
54	02316002*	Roadway Excavation (Plan Quantity)	130000	cubic yard
55	02318001P	Small Ditch Excavation	1290	foot
56	02318002*	Irrigation Ditch	320	foot
57	023720010	Wire Enclosed Riprap	20	cubic yard
58	023730010	Loose Riprap	40	cubic yard
59	02610001*	22 Inch x 36 Inch Smooth Lined Arch Pipe Culvert, Class C	80	foot
60	02610002*	26 Inch x 43 Inch Smooth Lined Arch Pipe Culvert, Class C	105	foot
61	02610004*	Transition Pipe	1	each
62	02610005*	30 Inch Overflow Pipe	1	lump sum
63	02610009*	15 Inch Smooth Lined Pipe Culvert, Class C	1220	foot
64	02610018*	18 Inch Smooth Lined Pipe Culvert, Class C	7610	foot
65	02610019*	24 Inch Smooth Lined Pipe Culvert, Class C	2870	foot
66	02610020*	30 Inch Smooth Lined Pipe Culvert, Class C	3200	foot
67	02610021*	36 Inch Smooth Lined Pipe Culvert, Class C	2970	foot
68	02610022*	42 Inch Smooth Lined Pipe Culvert, Class C	3020	foot
69	02610023*	48 Inch Smooth Lined Pipe Culvert, Class C	7370	foot
70	026110050	Screw Gate and Frame 18 inch	3	each
71	02613001D	Culvert End Sections 15 Inch	2	each
72	026130030	Culvert End Sections 18 inch	13	each
73	026130040	Culvert End Sections 24 inch	9	each
74	026130050	Culvert End Sections 30 inch	2	each
75	02621001*	Spring Development	1	lump sum
76	02622002*	Underdrain, 12 inch	17300	foot
77	02645001*	2x3 Box Culvert	360	foot
78	02716001*	Stress Absorbing Membrane Interface	7300	square yard
79	027210050	Untreated Base Course 3/4 inch Max	76600	ton
80	027410050	HMA - 1/2 inch	400	ton
81	02741006P	HMA - 3/4 inch	60800	ton
82	027480010	Liquid Asphalt MC-70 or MC-250	126	ton
83	027480050	Emulsified Asphalt SS-1H	112	ton
84	027490010	Asphalt Concrete Driveway	11	each
85	02765003*	Remove Pavement Markings	1380	foot
86	02765005*	Pavement Marking Paint	10	gallon
87	027680005	4 inch Pavement Marking Tape - White	36980	foot
88	027680010	8 inch Pavement Marking Tape - White	8510	foot

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Utah Department of Transportation Bidder's Schedule

Bid Opening Date: 6/24/2003

Project Number: SP-0134(2)11

Project Name: 2700 NORTH; I-15 TO WASHINGTON, OGDEN

Description: MAJOR WIDENING

Funding: STATE

Region: REGION 1

County: WEBER

#	Item	Description	Quantity	Unit
10 - ROADWAY				
89	027680015	4 inch Pavement Marking Tape - Yellow	40590	foot
90	027680025	Pavement Message (Tape)	546	each
91	027710015	Concrete Curb Type B4	100	foot
92	027710017	Concrete Curb Type B5	410	foot
93	027710020	Concrete Curb Type M2	740	foot
94	027710025	Concrete Curb and Gutter Type B1	31400	foot
95	027710040	Concrete Driveway Flared, 6 inch Thick	4380	square foot
96	027710045	Concrete Driveway Flared, 7 inch Thick	11530	square foot
97	02771006*	Pedestrian Access Ramp Type B	860	square foot
98	02771008*	Pedestrian Access Ramp Type E	3320	square foot
99	027710100	Plowable End Section	8	each
100	02771011*	Curb End Section	2	each
101	027760010	Concrete Sidewalk	108830	square foot
102	027760050	Concrete Flatwork 7 inch thick	1860	square foot
103	02776006*	Detention Pond Spillway	1	lump sum
104	02777001*	Stamped Colored Concrete	10660	square yard
105	027860010	Open Graded Surface Course	7700	ton
106	027860020	Asphalt Cement PG 64-34	473	ton
107	02821000P	6 ft Chain Link Fence, Type I	2080	foot
108	028210018	6 ft Chain Link Fence, Type II	450	foot
109	028210044	Chain Link Brace Post	8	each
110	028210084	Chain Link Gate, H= 6 ft X W= 12 ft	4	each
111	02822000*	Relocate Fence	760	foot
112	028220030	Right-of-Way Fence, Type D (Metal Post)	9420	foot
113	028220085	Right-of-Way Gate 12 ft	12	each
114	028220105	Right-of-Way Brace Post	51	each
115	02861005*	Precast Noise Wall 13 ft (Specialty Item)	1810	foot
116	02873000*	Construction Work Over Questar HP and IHP Steel Gas Lines	6510	foot
117	028960010	Boundary Survey and Survey Plat	1	lump sum
118	028960020	Right-of-Way Markers	181	each
119	029610030	Rotomilling - 2 Inch	7230	square yard
120	03310001*	Catch Basin	181	each
121	03310002*	Cleanout Box	52	each
122	03310004*	Standard Diversion Box	12	each
123	03310006*	Irrigation Overflow Box	1	each
124	03310007*	Outlet Structure	1	each

20 - STRUCTURES

Description: STRUCTURE # E-2515 Western Irrigation Company Box Culvert

125	032110010	Reinforcing Steel - Coated	2204	pound
126	03310001*	Structural Concrete(Est. Lump Qty: 25.2 cu yd)	1	lump sum
127	03320001*	Box Culvert Barrel	1	lump sum

Note: Item numbers ending with "" or "P" identify a change to the Standard Specification, Supplemental Specifications or Measurement and payment. Read all related documents carefully.

Utah Department of Transportation

Bidder's Schedule

Bid Opening Date: 6/24/2003

Project Number: SP-0134(2)11

Project Name: 2700 NORTH; I-15 TO WASHINGTON, OGDEN

Description: MAJOR WIDENING

Funding: STATE

Region: REGION 1

County: WEBER

#	Item	Description	Quantity	Unit
30 - LANDSCAPING				
128	01571003P	Silt Fence	250	yard
129	02813001*	Re-Establish Sprinkler System	1	lump sum
130	029110010	Cellulose Fiber Mulch	12	acre
131	02912003P	Strip and Stockpile Topsoil	12	cubic yard
132	029120040	Spread Stockpiled Topsoil	65100	square yard
133	02922001*	Drill Seed	8	acre
134	02922003*	Broadcast Seed	4	acre
135	029220060	Turf Sod	8430	square foot
40 - SIGNING				
136	028910005	Remove Sign	86	each
137	028910010	Relocation of Sign	14	each
138	028910030	Sign Type A-I, 21 inch X 15 inch	17	each
139	028910040	Sign Type A-I, 24 inch X 12 inch	17	each
140	02891004P	Sign Type A-I, 24 inch X 24 inch	13	each
141	028910050	Sign Type A-I, 24 inch X 30 inch	22	each
142	028910055	Sign Type A-I, 30 inch X 24 inch	13	each
143	02891005P	Sign Type A-I, 36 inch X 12 inch	18	each
144	028910060	Sign Type A-I, 30 inch X 30 inch	22	each
145	028910065	Sign Type A-I, 36 inch X 36 inch	11	each
146	02891006P	Sign Type A-I, 36 inch X 24 inch	2	each
147	028910070	Sign Type A-I, 48 inch X 48 inch	4	each
148	02891007P	Sign Type A-I, 30 inch X 18 inch	1	each
149	02891008P	Sign Type A-I, 18 Inch Diameter	3	each
150	028910115	Sign Type A-2, 30 inch X 30 inch	21	each
151	028910120	Sign Type A-2, 36 inch X 36 inch	1	each
152	02891013P	Sign Type A-2, 30 inch X 48 inch	2	each
153	02891014P	Sign Type A-2, 24 inch X 24 inch	5	each
154	02891015P	Sign Type A-2, 18 inch X 18 inch	11	each
155	02891020P	Sign Type P-1, 96 inch X 42 inch	1	each
156	02891021P	Sign Type P-1, 66 inch X 18 inch	1	each
157	02891022P	Sign Type P-1, 72 inch X 30 inch	2	each
158	02891023P	Sign Type P-1, 114 inch X 60 inch	3	each
159	02891024P	Sign Type P-1, 102 inch X 54 inch	1	each
50 - SIGNALS				
160	028920020	Installation of State Furnished Material	1	lump sum
161	028920025	Installation of State Furnished Mast Arm Mounted Sign	6	each
162	02892003P	Upgrade Traffic Signal System SR-134/1500 West	1	lump sum
163	02892004P	Upgrade Traffic Signal System SR-134/SR-89	1	lump sum

Note: Item numbers ending with "" or "P" identify a change to the Standard Specification, Supplemental Specifications or Measurement and payment. Read all related documents carefully.

Utah Department of Transportation

Bidder's Schedule

Bid Opening Date: 6/24/2003

Project Number: SP-0134(2)11

Project Name: 2700 NORTH; I-15 TO WASHINGTON, OGDEN

Description: MAJOR WIDENING

Funding STATE

Region: REGION 1

County WEBER

#	Item	Description	Quantity	Unit
50 - SIGNALS				
164	02892005P	Traffic Signal System Conduit 2700 North/1000 West	1	lump sum
165	02892006P	Upgrade Traffic Signal System 2600 North/Washington	1	lump sum
70 - ATMS				
166	13553000*	ATMS Conduit 2700 North	1	lump sum

Note: Item numbers ending with "" or "P" identify a change to the Standard Specification, Supplemental Specifications or Measurement and payment. Read all related documents carefully.

VIII. Measurement and Payment

MEASUREMENT AND PAYMENT

The Department will measure and pay for each bid item as detailed in this section.
Payment is contingent upon acceptance by the Department.

Items are listed by Specification and in tables as follows:

Item #	Bid item number	Bid Item Name	Unit of measurement and payment
Additional information goes here.			

1	00830001U	Equal Opportunity Training	Hour
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2	012850010	Mobilization	Lump sum
	Payment	Amount Paid	When Paid
	First	The lesser of 25% of Mobilization or 2.5% of contract	With first estimate
	Second	The lesser of 25% of Mobilization or 2.5% of contract	With estimate following completion of 5% of contract
	Third	The lesser of 25% of Mobilization or 2.5% of contract	With estimate following completion of 10% of contract
	Fourth	The lesser of 25% of Mobilization or 2.5% of contract	With estimate following completion of 20% of contract
	Final	Amount bid in excess of 10% of contract price.	Project Acceptance-Final

3	01315001*	Public Information Services	Lump Sum
	Payment	Amount Paid	When Paid
	One	25% of bid item amount	With first estimate
		Remaining portion of bid item paid as a percentage of the contract completed	With each estimate

4	01554000*	Traffic Control	Lump Sum
	Payment	Amount Paid	When Paid
	One	25% of the bid item amount	With first estimate
		Remaining portion of bid item paid as a percentage of the contract completed	With each estimate

5	015540010	Traffic Control Maintainer	Calendar day
Deduct all Department costs of corrective action against monies due to Contractor.			

6	015720020	Dust Control and Watering	1000 Gal
7	01721001*	Survey (Specialty Item)	Lump sum
	Payment	Amount Paid	When Paid
	First	25% of the bid item amount	When the project is 5% complete
	Second	A total of 40% of bid item amount	When the project is 10% complete
	Third	A total of 75% of bid item amount	When the project is 50% complete
	Fourth	A total or 90% of bid item amount	When the project is 75% complete
	Fifth	The Department retains the remaining 10% of bid item amount until the projected completion and all surveying and design data “as staked/constructed” drawings in Microstation format clearly showing all final dimensions, lines, grades, tie-ins, and elevations from contract plans are returned to the Engineer.	
8	018910020	Move Mailbox	Each
In place, Department will not pay for temporary mailbox installation or removal.			
9	01892001P	Reconstruct Catch Basin	Each
In place. Includes reconstruction of cleanout boxes. Includes installation of new grate and frame or solid cover and frame, as shown on the plans.			
10	01892004*	Reconstruct Valve Box	Each
In place. Includes reconstruction of monitoring wells between Sta. 12+00 and Sta. 13+00.			
11	018920050	Reconstruct Manhole	Each
In place			
12	01892006*	Reconstruct Monument Box	Each
In place.			
13	02056001*	Granular Borrow	Cubic Yard
As measured by the Contractor’s surveyor in final position by the average end area method. Refer to Section 01280 “Measurement.”			

14	02061004*	Underdrain Granular Backfill	Cubic Yard
As measured by the Contractor's surveyor in final position by the average end area method. Refer to Section 01280 "Measurement" and Special Provision Section 02061 M.			
15	02075001*	Geotextiles - Separation	Square Yard
In place, Department will not pay for overlaps.			
16	020750020	Geotextiles - Erosion Control	Square Yard
In place, Department will not pay for overlaps.			
17	020750030	Geotextiles - Drainage	Square Yard
In place, Department will not pay for overlaps.			
18	02076001*	70 Inch Pipe Casing	Feet
Measured parallel to the center line from barrel end to barrel end, in place. Includes 48 Inch Tongue and Groove Pipe Culvert carrier pipe, excavation, jacking pits, bedding, backfill, and all other miscellaneous items necessary for proper installation.			
19	02076002*	24 Inch Steel Casing	Feet
Measured parallel to the center line from barrel end to barrel end, in place.			
20	02079001*	8 Inch PVC Waterline	Feet
Measured parallel to the center line from barrel end to barrel end, in place. Includes excavation, bedding, backfill, all fittings, couplings, thrust restraint, tees, elbows, other piping appurtenances, flushing, testing, and disinfection necessary for proper installation.			
21	02079002*	10 Inch PVC Waterline	Feet
Measured parallel to the center line from barrel end to barrel end, in place. Includes excavation, bedding, backfill, all fittings, couplings, thrust restraint, tees, elbows, other piping appurtenances, flushing, testing, and disinfection necessary for proper installation.			
22	02079003*	8 Inch Ductile Iron Waterline	Feet
Measured parallel to the center line from barrel end to barrel end, in place. Includes excavation, bedding, backfill, all fittings, couplings, thrust restraint, tees, elbows, other piping appurtenances, flushing, testing, and disinfection necessary for proper installation.			
23	02079004*	10 Inch Ductile Iron Waterline	Feet
Measured parallel to the center line from barrel end to barrel end, in place. Includes excavation, bedding, backfill, all fittings, couplings, thrust restraint, tees, elbows, other piping appurtenances, flushing, testing, and disinfection necessary for proper installation.			

24	02079005*	4 Inch PVC Secondary Waterline	Feet
Measured parallel to the center line from barrel end to barrel end, in place. Includes excavation, bedding, backfill, all fittings, couplings, thrust restraint, tees, elbows, other piping appurtenances, flushing, and testing necessary for proper installation.			
25	02079006*	12 Inch PVC Secondary Waterline	Feet
Measured parallel to the center line from barrel end to barrel end, in place. Includes excavation, bedding, backfill, all fittings, couplings, thrust restraint, tees, elbows, other piping appurtenances, flushing and testing necessary for proper installation.			
26	02079010*	4 Inch Gate Valve	Each
In place.			
27	02079011*	6 Inch Gate Valve	Each
In place.			
28	02079012*	8 Inch Gate Valve	Each
In place.			
29	02079013*	10 Inch Gate Valve	Each
In place.			
30	02079020*	Fire Hydrant	Each
In place. Includes installation of new connection pipe, valve, fittings, excavation, and placement of bedding and backfill as necessary for proper installation.			
31	02079021*	Relocate Fire Hydrant	Each
In place. Includes adjustment of existing fire hydrant to new offset and grade, installation of new connection pipe, valve, fittings, excavation, and placement of bedding and backfill as necessary for proper installation.			
32	02079030*	Loop 6 Inch Waterline	Each
In place. Includes piping, fittings, couplings, thrust restraint, and all piping appurtenances.			
33	02079031*	Loop 10 Inch Waterline	Each
In place. Includes piping, fittings, couplings, thrust restraint, and all piping appurtenances.			

34	02079032*	Reconnect Service Line	Each
Includes all necessary items for reconnecting a water service line except furnishing and installing the water meter.			
35	02221001*	Remove Waterline	Feet
Removed.			
36	02221002*	Remove Valve	Each
Removed.			
37	022210025	Remove Manhole	Each
Removed			
38	022210030	Remove Catch Basin	Each
Removed			
39	02221004*	Remove Concrete Structure	Each
Removed.			
40	02221005*	Remove Block Wall	Feet
Removed. Includes delivery to owner or manager of Wasatch View Estates.			
41	022210050	Remove Tree	Each
Removed, refer to Standard Specification 02221, PART 3, paragraph: Tree Removal.			
42	02221006*	Remove Buried Fuel Tank	Each
Removed. Adhere to environmental regulations for buried fuel tank removal and demolition as specified in Special Provision 02221M and Section 01355: Environmental Protection.			

43	02221007*	Remove Building, Basement, and Foundation Parcel # 0134:26	Parcel
<p>A. Including any remaining out-buildings and incidental obstructions.</p> <p>B. Department will pay separately for material used for backfilling basements and other depressions as “Roadway Excavation” or “Borrow.” When no appropriate material item is included in the proposal, consider that item incidental to the work.</p> <p>Price Adjustments:</p> <ol style="list-style-type: none"> 1. The Department is not responsible for any vandalism or theft that occurs to the building or its contents which reduces the value of the salvage or increases the cost of removal after the award of the Contract. 2. Removal of obstructions not visible or not designated on plans or special provision will be paid for as extra work. 3. Obstructions shown on the plans for removal but not having a pay item will be included in other items of work. 4. Material used for backfilling basements and other depressions will be measured and paid for separately as “Roadway Excavation,” or “Borrow.” If no appropriate material item is included in the proposal, it will be considered incidental to the work. 			
44	02221008*	Remove Building, Basement, and Foundation Parcel # 0134:47S	Parcel
<p>A. Including any remaining out-buildings and incidental obstructions.</p> <p>B. Department will pay separately for material used for backfilling basements and other depressions as “Roadway Excavation” or “Borrow.” When no appropriate material item is included in the proposal, consider that item incidental to the work.</p> <p>Price Adjustments:</p> <ol style="list-style-type: none"> 1. The Department is not responsible for any vandalism or theft that occurs to the building or its contents which reduces the value of the salvage or increases the cost of removal after the award of the Contract. 2. Removal of obstructions not visible or not designated on plans or special provision will be paid for as extra work. 3. Obstructions shown on the plans for removal but not having a pay item will be included in other items of work. 4. Material used for backfilling basements and other depressions will be measured and paid for separately as “Roadway Excavation,” or “Borrow.” If no appropriate material item is included in the proposal, it will be considered incidental to the work. 			
45	022210080	Remove Fence	Feet
Removed			
46	022210095	Remove Pipe Culvert	Feet
Removed.			
47	02222000*	Remove Concrete Sidewalk	Square Yard
Area of steps will be based on the area of the horizontal projection.			

48	02222001*	Remove Concrete Driveway	Square Yard
49	02222002*	Remove Concrete Curb	Feet
50	02222003*	Remove Concrete Curb and Gutter	Feet
51	02222004*	Remove Asphalt Pavement	Square Yard
<p>Regardless of the depth or number of courses encountered.</p> <p>A. Do not measure discontinued roads within the limits of the new roadbed or roads that are disturbed in performing other items of work.</p> <p>B. Department will pay for material placed to cover pavements or fill depressions under "Roadway Excavation," or "Borrow."</p> <p>C. Quantity measured and paid is excluded from measurement and payment under "Roadway Excavation".</p> <p>D. Department will pay for concrete curb and concrete curb and gutter integral to the concrete pavement to be removed under "Remove Concrete Pavement."</p> <p>Includes all saw cutting to match existing.</p> <p>Includes recompaction of existing untreated base course under existing SR-134 travel lanes, inside saw cut limits.</p>			
52	02222005*	Obliterate Road	Square Yard
<p>Department will pay for material placed to cover pavements or fill depressions under "Roadway Excavation," "Borrow," or "Spread Stockpiled Topsoil".</p>			
53	022310010	Clearing and Grubbing	Lump sum
54	02316002*	Roadway Excavation (Plan Quantity)	Cubic Yard
<p>Plan quantity, as measured by the Contractor's surveyor in final position by the average end area method. Refer to Section 01280 "Measurement."</p> <p>Includes excavation and stockpiling of A-6 material for construction of Barker Pond berm.</p> <p>Includes excavation and placement of material at Barker Pond and Parcel 0134:57:E as directed in Special Provision 02316 M.</p> <p>All pipe culverts less than 6 Inch diameter requiring removal will be considered incidental to the work of "Roadway Excavation".</p>			
55	02318001P	Small Ditch Excavation	Feet
<p>Measured along the ditch center line, in place.</p>			
56	02318002*	Irrigation Ditch	Feet
<p>Measured along the ditch center line, in place.</p>			
57	023720010	Wire Enclosed Riprap	Cubic Yard
<p>In place, computed from the specified thickness and cross-sectional area of the wire baskets.</p>			

58	023730010	Loose Riprap	Cubic Yard
In place, computed using the in-place surface area and specified thickness.			
59	02610001*	22 Inch x 36 Inch Smooth Lined Arch Pipe Culvert, Class C	Feet
Measured parallel to the center line from barrel end to barrel end, in place.			
60	02610002*	26 Inch x 43 Inch Smooth Lined Arch Pipe Culvert, Class C	Feet
Measured parallel to the center line from barrel end to barrel end, in place.			
61	02610004*	Transition Pipe	Each
In place. Includes connection to 2x3 box culvert and 36 inch irrigation pipe.			
62	02610005*	30 Inch Overflow Pipe	Lump Sum
In place. Includes 30 Inch Smooth Lined Pipe Culvert, Class C, concrete collars and headwall on adjacent pipes, standard trash racks, bar cage, steel plate, and all connections necessary for proper installation.			
63	02610009*	15 Inch Smooth Lined Pipe Culvert, Class C	Feet
Measured parallel to the center line from barrel end to barrel end, in place. Includes installation of a watertight, removable plug on future connection stubs, where noted in the plan sheets.			
64	02610018*	18 Inch Smooth Lined Pipe Culvert, Class C	Feet
Measured parallel to the center line from barrel end to barrel end, in place. Includes installation of a watertight, removable plug for future connection stubs, where noted in the plan sheets.			
65	02610019*	24 Inch Smooth Lined Pipe Culvert, Class C	Feet
Measured parallel to the center line from barrel end to barrel end, in place.			
66	02610020*	30 Inch Smooth Lined Pipe Culvert, Class C	Feet
Measured parallel to the center line from barrel end to barrel end, in place.			
67	02610021*	36 Inch Smooth Lined Pipe Culvert, Class C	Feet
Measured parallel to the center line from barrel end to barrel end, in place.			
68	02610022*	42 Inch Smooth Lined Pipe Culvert, Class C	Feet
Measured parallel to the center line from barrel end to barrel end, in place. Includes all work necessary to connect roof and parking lot drains to the storm drain system at the Admiral Beverage property (Sta. 63+00 to Sta. 68+00 LT.).			

69	02610023*	48 Inch Smooth Lined Pipe Culvert, Class C	Feet
Measured parallel to the center line from barrel end to barrel end, in place.			
70	026110050	Screw Gate and Frame 18 inch	Each
In place			
71	02613001D	Culvert End Sections 15 Inch	Each
In place			
72	026130030	Culvert End Sections 18 inch	Each
In place			
73	026130040	Culvert End Sections 24 inch	Each
In place			
74	026130050	Culvert End Sections 30 inch	Each
In place			
75	02621001*	Spring Development	Lump Sum
In place. Includes placement of 40 mil HDPE membrane and 12 Inch Pipe Culvert, Class C, and all work necessary to develop proper drainage at the natural spring near Sta. 133+50. Department will pay for underdrain, underdrain granular backfill, and geotextiles separately under the appropriate sections.			
76	02622002*	Underdrain, 12 inch	Feet
In place, measured parallel to the center line from barrel end to barrel end. Includes pre-manufactured plugs installed at the end of pipes not connected to a catch basin.			
77	02645001*	2x3 Box Culvert	Feet
Measured parallel to the center line from barrel end to barrel end, in place.			
78	02716001*	Stress Absorbing Membrane Interface	Square Yard
In place.			
79	027210050	Untreated Base Course 3/4 inch Max	Ton
In place			

80	027410050	HMA - 1/2 inch	Ton										
Includes aggregates, asphalt binder, hydrated lime, other additives, etc. The Department will not pay separately for asphalt binder, hydrated lime, additives, etc.													
81	02741006P	HMA - 3/4 inch	Ton										
Includes aggregates, asphalt binder, hydrated lime, other additives, etc. The Department will not pay separately for asphalt binder, hydrated lime, additives, etc. Includes any temporary paving required to carry out the traffic control plan.													
82	027480010	Liquid Asphalt MC-70 or MC-250	Ton										
Do not measure water added in excess of the specified amount in Standard Specification 02745.													
83	027480050	Emulsified Asphalt SS-1H	Ton										
Do not measure water added in excess of the specified amount in Standard Specification 02745.													
84	027490010	Asphalt Concrete Driveway	Each										
The Department pays for untreated base course under Section 02721, and Hot Mix Asphalt under the appropriate section.													
85	02765003*	Remove Pavement Markings	Feet										
Measurement for removing pavement markings: Measure per foot each line removed.													
86	02765005*	Pavement Marking Paint	Gallon										
In place, Payment: A. The Department will not pay for removal of unauthorized, smeared, or damaged markings. B. Price reduction for paint application rate: <table><tr><td>Rate</td><td>Pay Factor</td></tr><tr><td>At the specified rate</td><td>1.0</td></tr><tr><td>1-10 percent below the specified rate</td><td>0.75</td></tr><tr><td>11-15 percent below the specified rate</td><td>0.50</td></tr><tr><td>More than 15 percent below the specified rate</td><td>May be accepted at 0.40 percent or required to be repainted.</td></tr></table>				Rate	Pay Factor	At the specified rate	1.0	1-10 percent below the specified rate	0.75	11-15 percent below the specified rate	0.50	More than 15 percent below the specified rate	May be accepted at 0.40 percent or required to be repainted.
Rate	Pay Factor												
At the specified rate	1.0												
1-10 percent below the specified rate	0.75												
11-15 percent below the specified rate	0.50												
More than 15 percent below the specified rate	May be accepted at 0.40 percent or required to be repainted.												
87	027680005	4 inch Pavement Marking Tape - White	Feet										
A. Do not measure the gap in the skip line. B. Include all costs for the Manufacturer's Service Representative and other technical assistance in the contract unit price.													
88	027680010	8 inch Pavement Marking Tape - White	Feet										
A. Do not measure the gap in the skip line. B. Include all costs for the Manufacturer's Service Representative and other technical assistance in the contract unit price.													

89	027680015	4 inch Pavement Marking Tape - Yellow	Feet
A. Do not measure the gap in the skip line. B. Include all costs for the Manufacturer's Service Representative and other technical assistance in the contract unit price.			

90	027680025	Pavement Message (Tape)	Each
Measurement - Painted Pavement Messages: A. Letter = one message. B. Arrow = one message. C. Multi-headed arrow = one message per arrow. D. School crossbars = one message per 24 inch x 10 ft bar. E. Crosswalk = two message per lane and two messages per shoulder. F. Stop Bar = one message per lane and one message per shoulder. G. Railroad crossing markings = seven messages per lane. 1. 'R' = one message each (two required). 2. 'X' = two messages. 3. Transverse Bar = one message each (two required). 4. Stop Bar = one message. H. Include all costs for the Manufacturer's Service Representative and other technical assistance in the contract unit price.			

91	027710015	Concrete Curb Type B4	Feet												
Measured along the roadway face. Include excavation if Roadway Excavation is not a bid item.															
Price Adjustments for Strength															
A. When concrete is below specified strength:															
1. Department may accept item at a reduced price															
2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength.															
3. Department will calculate the pay factor as follows:															
<table><tr><td>Psi below specified strength:</td><td>Pay Factor:</td></tr><tr><td>1 - 100</td><td>0.98</td></tr><tr><td>101 - 200</td><td>0.94</td></tr><tr><td>201 - 300</td><td>0.88</td></tr><tr><td>301 - 400</td><td>0.80</td></tr><tr><td>More than 400</td><td>0.50 or Engineer may reject</td></tr></table>				Psi below specified strength:	Pay Factor:	1 - 100	0.98	101 - 200	0.94	201 - 300	0.88	301 - 400	0.80	More than 400	0.50 or Engineer may reject
Psi below specified strength:	Pay Factor:														
1 - 100	0.98														
101 - 200	0.94														
201 - 300	0.88														
301 - 400	0.80														
More than 400	0.50 or Engineer may reject														

92	027710017	Concrete Curb Type B5	Feet
Measured along the roadway face. Include excavation if Roadway Excavation is not a bid item.			
Price Adjustments for Strength			
A. When concrete is below specified strength:			
1. Department may accept item at a reduced price			
2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength.			
3. Department will calculate the pay factor as follows:			
Psi below specified strength:		Pay Factor:	
1 - 100		0.98	
101 - 200		0.94	
201 - 300		0.88	
301 - 400		0.80	
More than 400		0.50 or Engineer may reject	

93	027710020	Concrete Curb Type M2	Feet
Measured along the roadway face. Include excavation if Roadway Excavation is not a bid item.			
Price Adjustments for Strength			
A. When concrete is below specified strength:			
1. Department may accept item at a reduced price			
2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength.			
3. Department will calculate the pay factor as follows:			
Psi below specified strength: Pay Factor:			
1 - 100 0.98			
101 - 200 0.94			
201 - 300 0.88			
301 - 400 0.80			
More than 400 0.50 or Engineer may reject			

94	027710025	Concrete Curb and Gutter Type B1	Feet
Measured along the roadway face. Include excavation if Roadway Excavation is not a bid item.			
Price Adjustments for Strength			
A. When concrete is below specified strength:			
1. Department may accept item at a reduced price			
2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength.			
3. Department will calculate the pay factor as follows:			
Psi below specified strength: Pay Factor:			
1 - 100 0.98			
101 - 200 0.94			
201 - 300 0.88			
301 - 400 0.80			
More than 400 0.50 or Engineer may reject			

95	027710040	Concrete Driveway Flared, 6 inch Thick	Square Feet
In place, include Radius and Flares.			
Price Adjustments for Strength			
A. When concrete is below specified strength:			
1. Department may accept item at a reduced price			
2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength.			
3. Department will calculate the pay factor as follows:			
Psi below specified strength: Pay Factor:			
1 - 100 0.98			
101 - 200 0.94			
201 - 300 0.88			
301 - 400 0.80			
More than 400 0.50 or Engineer may reject			

96	027710045	Concrete Driveway Flared, 7 inch Thick	Square Feet
Include Radius and Flares. Price Adjustments for Strength A. When concrete is below specified strength: 1. Department may accept item at a reduced price 2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength. 3. Department will calculate the pay factor as follows: Psi below specified strength: Pay Factor: 1 - 100 0.98 101 - 200 0.94 201 - 300 0.88 301 - 400 0.80 More than 400 0.50 or Engineer may reject			

97	02771006*	Pedestrian Access Ramp Type B	Square Feet
In place Price Adjustments for Strength A. When concrete is below specified strength: 1. Department may accept item at a reduced price 2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength. 3. Department will calculate the pay factor as follows: Psi below specified strength: Pay Factor: 1 - 100 0.98 101 - 200 0.94 201 - 300 0.88 301 - 400 0.80 More than 400 0.50 or Engineer may reject			

98	02771008*	Pedestrian Access Ramp Type E	Square Feet
In place Price Adjustments for Strength A. When concrete is below specified strength: 1. Department may accept item at a reduced price 2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength. 3. Department will calculate the pay factor as follows: Psi below specified strength: Pay Factor: 1 - 100 0.98 101 - 200 0.94 201 - 300 0.88 301 - 400 0.80 More than 400 0.50 or Engineer may reject			

99	027710100	Plowable End Section	Each
In place Price Adjustments for Strength A. When concrete is below specified strength: 1. Department may accept item at a reduced price 2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength. 3. Department will calculate the pay factor as follows: Psi below specified strength: Pay Factor: 1 - 100 0.98 101 - 200 0.94 201 - 300 0.88 301 - 400 0.80 More than 400 0.50 or Engineer may reject			

100	02771011*	Curb End Section	Each
In place Price Adjustments for Strength A. When concrete is below specified strength: 1. Department may accept item at a reduced price 2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength. 3. Department will calculate the pay factor as follows: Psi below specified strength: Pay Factor: 1 - 100 0.98 101 - 200 0.94 201 - 300 0.88 301 - 400 0.80 More than 400 0.50 or Engineer may reject			

101	027760010	Concrete Sidewalk	Square Feet
In place, include excavation if Roadway Excavation is not a bid item. Price Adjustments for Strength A. When concrete is below specified strength: 1. Department may accept item at a reduced price 2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength. 3. Department will calculate the pay factor as follows: Psi below specified strength: Pay Factor: 1 - 100 0.98 101 - 200 0.94 201 - 300 0.88 301 - 400 0.80 More than 400 0.50 or Engineer may reject			
The department will not pay for sidewalk inside concrete driveway limits.			

102	027760050	Concrete Flatwork 7 inch thick	Square Feet
In place			
Price Adjustments for Strength			
A. When concrete is below specified strength:			
1. Department may accept item at a reduced price			
2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength.			
3. Department will calculate the pay factor as follows:			
Psi below specified strength:		Pay Factor:	
1 - 100		0.98	
101 - 200		0.94	
201 - 300		0.88	
301 - 400		0.80	
More than 400		0.50 or Engineer may reject	

103	02776006*	Detention Pond Spillway	Lump Sum
In place			
Price Adjustments for Strength			
A. When concrete is below specified strength:			
1. Department may accept item at a reduced price			
2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength.			
3. Department will calculate the pay factor as follows:			
Psi below specified strength:		Pay Factor:	
1 - 100		0.98	
101 - 200		0.94	
201 - 300		0.88	
301 - 400		0.80	
More than 400		0.50 or Engineer may reject	
Includes concrete and excavation necessary to construct the spillway.			
Untreated base course placed under the concrete will be paid for under “Untreated Base Course ¾ Inch Max”.			

104	02777001*	Stamped Colored Concrete	Square Yard
In place, include excavation if Roadway Excavation is not a bid item.			
Price Adjustments for Strength			
A. When concrete is below specified strength:			
1. Department may accept item at a reduced price			
2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength.			
3. Department will calculate the pay factor as follows:			
Psi below specified strength: Pay Factor:			
1 - 100 0.98			
101 - 200 0.94			
201 - 300 0.88			
301 - 400 0.80			
More than 400 0.50 or Engineer may reject			

105	027860010	Open Graded Surface Course	Ton
Measurement: In place A. Include aggregates and all additives including hydrated lime. Provide additional measurements for Asphalt Binder.			

106	027860020	Asphalt Cement PG 64-34	Ton
107	02821000P	6 ft Chain Link Fence, Type I	Feet
In place. Measured parallel to the ground along the fence including line posts, less openings. Includes barbed wire and arm, where noted in the plans.			
108	028210018	6 ft Chain Link Fence, Type II	Feet
In place Measured parallel to the ground along the fence including line posts, less openings.			
109	028210044	Chain Link Brace Post	Each
In place			
110	028210084	Chain Link Gate, H=6 ft X W=12 ft	Each
In place A. Double gates will be counted as two gates. B. Include barbed wire arms on gates.			
111	02822000*	Relocate Fence	Feet
Relocated. Measured parallel to the ground along the fence including all posts, less openings. Includes the cost of temporary fence.			
112	028220030	Right-of-Way Fence, Type D (Metal Post)	Feet
In place Measure parallel to the ground along the fence including line posts, less openings.			
113	028220085	Right-of-Way Gate 12 ft	Each
In place Double gates will be counted as two gates.			
114	028220105	Right-of-Way Brace Post	Each
In place Brace Posts include end, gate, corner or braced line posts			
115	02861005*	Precast Noise Wall 13 ft (Specialty Item)	Feet
In place			

116	02873000*	Construction Work Over Questar HP and IHP Steel Gas Lines	Feet
Measured parallel to the ground along specified steel gas lines which will be left in place after roadway construction for the section is completed . Includes only steel HP and IHP lines located in locations where roadway excavation will occur.			
117	028960010	Boundary Survey and Survey Plat	Lump Sum
118	028960020	Right-of-Way Markers	Each
In place			
119	029610030	Rotomilling - 2 inch	Square Yard
120	03310001*	Catch Basin	Each
Price Adjustments for Strength A. When concrete is below specified strength: <ol style="list-style-type: none"> Department may accept item at a reduced price The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength. Department will calculate the pay factor as follows: Psi below specified strength: Pay Factor: 1 - 100 0.98 101 - 200 0.94 201 - 300 0.88 301 - 400 0.80 More than 400 0.50 or Engineer may reject 			
Includes the cost of concrete, reinforcing steel, frames, grates, and manhole steps.			
121	03310002*	Cleanout Box	Each
Price Adjustments for Strength A. When concrete is below specified strength: <ol style="list-style-type: none"> Department may accept item at a reduced price The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength. Department will calculate the pay factor as follows: Psi below specified strength: Pay Factor: 1 - 100 0.98 101 - 200 0.94 201 - 300 0.88 301 - 400 0.80 More than 400 0.50 or Engineer may reject 			
Includes the cost of concrete, reinforcing steel, frames, solid covers, and manhole steps.			

122	03310004*	Standard Diversion Box	Each
Price Adjustments for Strength			
A. When concrete is below specified strength:			
1. Department may accept item at a reduced price			
2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength.			
3. Department will calculate the pay factor as follows:			
Psi below specified strength: Pay Factor:			
1 - 100 0.98			
101 - 200 0.94			
201 - 300 0.88			
301 - 400 0.80			
More than 400 0.50 or Engineer may reject			
Includes the cost of concrete, reinforcing steel, frames, gates, and solid covers.			

123	03310006*	Irrigation Overflow Box	Each
Price Adjustments for Strength			
A. When concrete is below specified strength:			
1. Department may accept item at a reduced price			
2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength.			
3. Department will calculate the pay factor as follows:			
Psi below specified strength: Pay Factor:			
1 - 100 0.98			
101 - 200 0.94			
201 - 300 0.88			
301 - 400 0.80			
More than 400 0.50 or Engineer may reject			
Includes the cost of concrete, reinforcing steel, frames, gates, solid covers, plates, and lids.			

124	03310007*	Outlet Structure	Each
Price Adjustments for Strength			
A. When concrete is below specified strength:			
1. Department may accept item at a reduced price			
2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength.			
3. Department will calculate the pay factor as follows:			
Psi below specified strength: Pay Factor:			
1 - 100 0.98			
101 - 200 0.94			
201 - 300 0.88			
301 - 400 0.80			
More than 400 0.50 or Engineer may reject			
Includes the cost of concrete, reinforcing steel, frames, grates, bar cage, manhole steps, and all attachments.			

125	032110010	Reinforcing Steel - Coated	Pound
Measurement: Per plan quantity. 1. Do not include the mass of the coating or the specified test bars as computed weight. 2. Department will not make allowances for extra reinforcing steel required to provide lap splices that are requested by the Contractor. 3. Department will not make allowances for clips, chairs, wire, or other materials used for fastening reinforcement in place.			
126	03310001*	Structural Concrete (Est. Lump Qty: 25.2 cu yd)	Lump
Measurement: A. When the Contract provides a lump sum bid, the quantities shown on the plans are estimated quantities only, and are not to be used as exact quantities. B. When the contract provides measurement per cubic yard, measure quantities by the dimensions shown. C. Use the prismoidal formula when the method of average end areas is not sufficiently accurate. D. Do not measure concrete required to fill over breakage of excavation for footings, walls, or slabs. E. Department will not deduct for volume occupied by pipes (other than culverts), reinforcing steel, piles, metal grillage, anchors, conduits, or weep holes. Payment A. Department will pay for reinforcing steel for structures separately, unless otherwise noted. B. Department will pay separately for concrete placed in individual structures containing less than 8 yd ³ at the bid price per cubic yard for Concrete, Small Structure. C. Department will make no separate payment for excavation for structures. D. Department will adjust prices as follows when the Contract provides for concrete structures as a lump sum: 1. If the Engineer increases or decreases the quantity of concrete: C Unit price will be determined by dividing the contract lump sum price of that item by the estimated quantity of concrete as shown on the plans. C The contract lump sum price will be adjusted by an amount equal to the product of the change in quantity and computed unit price. 2. If the estimated quantity of concrete as shown is in error by more than 10 percent: C The contract lump sum price will be increased or decreased by an amount equal to the product of the unit price determined in accordance with the previous line of this paragraph and the difference between the corrected quantity and the estimated quantity. E. Concrete Slope Protection: If preparation of the existing subgrade requires excavation or backfilling in excess of the 3-1/2 inches average depth beyond the slope at bid time, Department will pay per Section 01282.			
Includes removal of the existing concrete weir upstream of the box culvert and temporary diversion of water necessary to construct the box culvert.			

127	03320001*	Box Culvert Barrel	Lump
At Contractor's option, a cast-in-place or pre-cast Box Culvert Barrel alternative may be selected.			
If cast-in-place alternative is selected the following measurement and payment conditions apply:			
Measurement:			
A. When the Contract provides a lump sum bid, the quantities shown on the plans are estimated quantities only, and are not to be used as exact quantities.			
B. When the contract provides measurement per cubic yard, measure quantities by the dimensions shown.			
C. Use the prismoidal formula when the method of average end areas is not sufficiently accurate.			
D. Do not measure concrete required to fill over breakage of excavation for footings, walls, or slabs.			
E. Department will not deduct for volume occupied by pipes (other than culverts), reinforcing steel, piles, metal grillage, anchors, conduits, or weep holes.			
Payment			
A. Department will pay for reinforcing steel for structures separately, unless otherwise noted.			
B. Department will pay separately for concrete placed in individual structures containing less than 8 yd³ at the bid price per cubic yard for Concrete, Small Structure.			
C. Department will make no separate payment for excavation for structures.			
D. Department will adjust prices as follows when the Contract provides for concrete structures as a lump sum:			
1. If the Engineer increases or decreases the quantity of concrete:			
C Unit price will be determined by dividing the contract lump sum price of that item by the estimated quantity of concrete as shown on the plans.			
C The contract lump sum price will be adjusted by an amount equal to the product of the change in quantity and computed unit price.			
2. If the estimated quantity of concrete as shown is in error by more than 10 percent:			
C The contract lump sum price will be increased or decreased by an amount equal to the product of the unit price determined in accordance with the previous line of this paragraph and the difference between the corrected quantity and the estimated quantity.			
F. Concrete Slope Protection: If preparation of the existing subgrade requires excavation or backfilling in excess of the 3-1/2 inches average depth beyond the slope at bid time, Department will pay per Section 01282.			
If pre-cast alternative is selected the following measurement and payment conditions apply:			
Measured in place by the lump sum basis for the total length specified on the plans.			
Price Adjustments for Strength			
A. When concrete is below specified strength:			
1. Department may accept item at a reduced price			
2. The pay factor will be applied to the portion of the item which is represented by the strength tests that fall below specified strength.			
3. Department will calculate the pay factor as follows:			
Psi below specified strength: Pay Factor:			
1 - 100 0.98			
101 - 200 0.94			
201 - 300 0.88			
301 - 400 0.80			
More than 400 0.50 or Engineer may reject			

128	01571003P	Silt Fence	Yard
In place			

State-Green Book

129	02813001*	Re-Establish Sprinkler System	Lump Sum
Includes all materials and workmanship to re-establish a complete and fully operational pressurized irrigation system.			
130	029110010	Cellulose Fiber Mulch	Acre
131	02912003P	Strip and Stockpile Topsoil	Cubic Yard
As measured in stockpile by Contractor's surveyor.			
132	029120040	Spread Stockpiled Topsoil	Square Yard
In place			
133	02922001*	Drill Seed	Acre
In place			
134	02922003*	Broadcast Seed	Acre
In place. Item includes wetland seed mix only.			
135	029220060	Turf Sod	Square Feet
In place			
136	028910005	Remove Sign	Each
137	028910010	Relocation of Sign	Each
In place, includes removal and disposal of existing concrete sign base.			
138	028910030	Sign Type A-1, 21 inch X 15 inch	Each
In place			
139	028910040	Sign Type A-1, 24 inch X 12 inch	Each
In place			
140	02891004P	Sign Type A-1, 24 inch X 24 inch	Each
In place			

State-Green Book

141	028910050	Sign Type A-1, 24 inch X 30 inch	Each
In place			
142	028910055	Sign Type A-1, 30 inch X 24 inch	Each
In place			
143	02891005P	Sign Type A-1, 36 inch X 12 inch	Each
In place			
144	028910060	Sign Type A-1, 30 inch X 30 inch	Each
In place			
145	028910065	Sign Type A-1, 36 inch X 36 inch	Each
In place			
146	02891006P	Sign Type A-1, 36 inch X 24 inch	Each
In place			
147	028910070	Sign Type A-1, 48 inch x 48 inch	Each
In place			
148	02891007P	Sign Type A-1, 30 inch x 18 inch	Each
In place			
149	02891008P	Sign Type A-1, 18 Inch Diameter	Each
In place			
150	028910115	Sign Type A-2, 30 inch X 30 inch	Each
In place			
151	028910120	Sign Type A-2, 36 inch X 36 inch	Each
In place			

152	02891013P	Sign Type A-2, 30 inch X 48 inch	Each
In place			
153	02891014P	Sign Type A-2, 24 inch X 24 inch	Each
In place			
154	02891015P	Sign Type A-2, 18 inch X 18 inch	Each
In place			
155	02891020P	Sign Type P-1, 96 inch X 42 inch	Each
In place			
156	02891021P	Sign Type P-1, 66 inch X 18 inch	Each
In place			
157	02891022P	Sign Type P-1, 72 inch X 30 inch	Each
In place			
158	02891023P	Sign Type P-1, 114 inch X 60 inch	Each
In place			
159	02891024P	Sign Type P-1, 102 inch X 54 inch	Each
In place			
160	028920020	Installation of State Furnished Material	Lump Sum
161	028920025	Installation of State Furnished Mast Arm Mounted Sign	Each
162	02892003P	Upgrade Traffic Signal System SR-134/1500 West	Lump Sum
Includes all materials and workmanship to provide a fully operational signal system and upgrade the existing signal system to video detection.			
163	02892004P	Upgrade Traffic Signal System SR-134/SR-89	Lump Sum
Includes all materials and workmanship to provide a fully operational signal system and upgrade the existing signal system to video detection.			

164	02892005P	Traffic Signal System Conduit 2700 North/1000 West	Lump Sum
Includes all materials and workmanship to install conduit system for a future traffic signal system.			
165	02892006P	Upgrade Traffic Signal System 2600 North/Washington	Lump Sum
Includes all materials and workmanship to upgrade the existing signal to video detection.			
166	13553000*	ATMS Conduit 2700 North	Lump Sum
Includes all materials and workmanship to install an ATMS Conduit System for future fiber optic communication.			

IX. PDBS Project Summary Report

Summary Report
Project: SP-0134(2)11
2700 NORTH; I-15 TO WASHINGTON

Version: 1

Detail	Alt Group	Alt #	Description	Qty	Unit
10 - ROADWAY	0	0			
Item Number	Description				
00830001U	Equal Opportunity Training			13,000	Hour
012850010	Mobilization			1	Lump
01315001*	Public Information Services			1	Lump
01554000*	Traffic Control			1	Lump
015540010	Traffic Control Maintainer			360	Cal d
015720020	Dust Control and Watering			9,000	1000 gal
01721001*	Survey (Specialty Item)			1	Lump
018910020	Move Mailbox			5	Each
01892001P	Reconstruct Catch Basin			25	Each
01892004*	Reconstruct Valve Box			30	Each
018920050	Reconstruct Manhole			37	Each
01892006*	Reconstruct Monument Box			3	Each
02056001*	Granular Borrow			121,700	cu yd
02061004*	Underdrain Granular Backfill			3,200	cu yd
02075001*	Geotextiles - Separation			96,400	sq yd
020750020	Geotextiles - Erosion Control			100	sq yd
020750030	Geotextiles - Drainage			25,800	sq yd
02076001*	70 Inch Pipe Casing			100	ft
02076002*	24 Inch Steel Casing			25	ft
02079001*	8 Inch PVC Waterline			690	ft
02079002*	10 Inch PVC Waterline			2,320	ft
02079003*	8 Inch Ductile Iron Waterline			290	ft
02079004*	10 Inch Ductile Iron Waterline			2,000	ft
02079005*	4 Inch PVC Secondary Waterline			1,300	ft
02079006*	12 Inch PVC Secondary Waterline			460	ft
02079010*	4 Inch Gate Valve			1	Each
02079011*	6 Inch Gate Valve			1	Each
02079012*	8 Inch Gate Valve			4	Each
02079013*	10 Inch Gate Valve			12	Each

Summary Report
Project: SP-0134(2)11
2700 NORTH; I-15 TO WASHINGTON

Version: 1

Detail	Alt Group	Alt #	Description		
10 - ROADWAY	0	0			
Item Number	Description	Qty	Unit		
02079020*	Fire Hydrant	4	Each		
02079021*	Relocate Fire Hydrant	2	Each		
02079030*	Loop 6 Inch Waterline	1	Each		
02079031*	Loop 10 Inch Waterline	1	Each		
02079032*	Reconnect Service Line	4	Each		
02221001*	Remove Waterline	1,040	ft		
02221002*	Remove Valve	13	Each		
022210025	Remove Manhole	5	Each		
022210030	Remove Catch Basin	8	Each		
02221004*	Remove Concrete Structure	9	Each		
02221005*	Remove Block Wall	65	ft		
022210050	Remove Tree	23	Each		
02221006*	Remove Buried Fuel Tank	1	Each		
02221007*	Remove Building, Basement, and Foundation Parcel # 0134:26	1	Parcel		
02221008*	Remove Building, Basement, and Foundation Parcel #0134:47S	1	Parcel		
022210080	Remove Fence	14,110	ft		
022210095	Remove Pipe Culvert	2,380	ft		
02222000*	Remove Concrete Sidewalk	1,370	sq yd		
02222001*	Remove Concrete Driveway	490	sq yd		
02222002*	Remove Concrete Curb	110	ft		
02222003*	Remove Concrete Curb and Gutter	6,560	ft		
02222004*	Remove Asphalt Pavement	61,420	sq yd		
02222005*	Obliterate Road	1,400	sq yd		
022310010	Clearing and Grubbing	1	Lump		
02316002*	Roadway Excavation (Plan Quantity)	130,000	cu yd		
02318001P	Small Ditch Excavation	1,290	ft		
02318002*	Irrigation Ditch	320	ft		
023720010	Wire Enclosed Riprap	20	cu yd		
023730010	Loose Riprap	40	cu yd		

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Project: SP-0134(2)11
2700 NORTH; I-15 TO WASHINGTON

Version: 1

Detail	Alt Group	Alt #	Description	Qty	Unit
10 - ROADWAY	0	0			
Item Number	Description		Qty	Unit	
02610001*	22 Inch x 36 Inch Smooth Lined Arch Pipe Culvert, Class C		80	ft	
02610002*	26 Inch x 43 Inch Smooth Lined Arch Pipe Culvert, Class C		105	ft	
02610004*	Transition Pipe		1	Each	
02610005*	30 Inch Overflow Pipe		1	Lump	
02610009*	15 Inch Smooth Lined Pipe Culvert, Class C		1,220	ft	
02610018*	18 Inch Smooth Lined Pipe Culvert, Class C		7,610	ft	
02610019*	24 Inch Smooth Lined Pipe Culvert, Class C		2,870	ft	
02610020*	30 Inch Smooth Lined Pipe Culvert, Class C		3,200	ft	
02610021*	36 Inch Smooth Lined Pipe Culvert, Class C		2,970	ft	
02610022*	42 Inch Smooth Lined Pipe Culvert, Class C		3,020	ft	
02610023*	48 Inch Smooth Lined Pipe Culvert, Class C		7,370	ft	
026110050	Screw Gate and Frame 18 inch		3	Each	
02613001D	Culvert End Sections 15 Inch		2	Each	
026130030	Culvert End Sections 18 inch		13	Each	
026130040	Culvert End Sections 24 inch		9	Each	
026130050	Culvert End Sections 30 inch		2	Each	
02621001*	Spring Development		1	Lump	
02622002*	Underdrain, 12 inch		17,300	ft	
02645001*	2x3 Box Culvert		360	ft	
02716001*	Stress Absorbing Membrane Interface		7,300	sq yd	
027210050	Untreated Base Course 3/4 inch Max		76,600	Ton	
027410050	HMA - 1/2 inch		400	Ton	
02741006P	HMA - 3/4 inch		60,800	Ton	
027480010	Liquid Asphalt MC-70 or MC-250		126	Ton	
027480050	Emulsified Asphalt SS-1H		112	Ton	
027490010	Asphalt Concrete Driveway		11	Each	
02765003*	Remove Pavement Markings		1,380	ft	
02765005*	Pavement Marking Paint		10	gal	
027680005	4 inch Pavement Marking Tape - White		36,980	ft	

Summary Report
Project: SP-0134(2)11
2700 NORTH; I-15 TO WASHINGTON

Version: 1

Detail	Alt Group	Alt #	Description	Qty	Unit
10 - ROADWAY	0	0			
Item Number	Description		Qty	Unit	
027680010	8 inch Pavement Marking Tape - White		8,510	ft	
027680015	4 inch Pavement Marking Tape - Yellow		40,590	ft	
027680025	Pavement Message (Tape)		546	Each	
027710015	Concrete Curb Type B4		100	ft	
027710017	Concrete Curb Type B5		410	ft	
027710020	Concrete Curb Type M2		740	ft	
027710025	Concrete Curb and Gutter Type B1		31,400	ft	
027710040	Concrete Driveway Flared, 6 inch Thick		4,380	sq ft	
027710045	Concrete Driveway Flared, 7 inch Thick		11,530	sq ft	
02771006*	Pedestrian Access Ramp Type B		860	sq ft	
02771008*	Pedestrian Access Ramp Type E		3,320	sq ft	
027710100	Plowable End Section		8	Each	
02771011*	Curb End Section		2	Each	
027760010	Concrete Sidewalk		108,830	sq ft	
027760050	Concrete Flatwork 7 inch thick		1,860	sq ft	
02776006*	Detention Pond Spillway		1	Lump	
02777001*	Stamped Colored Concrete		10,660	sq yd	
027860010	Open Graded Surface Course		7,700	Ton	
027860020	Asphalt Cement PG 64-34		473	Ton	
02821000P	6 ft Chain Link Fence, Type I		2,080	ft	
028210018	6 ft Chain Link Fence, Type II		450	ft	
028210044	Chain Link Brace Post		8	Each	
028210084	Chain Link Gate, H= 6 ft X W= 12 ft		4	Each	
02822000*	Relocate Fence		760	ft	
028220030	Right-of-Way Fence, Type D (Metal Post)		9,420	ft	
028220085	Right-of-Way Gate 12 ft		12	Each	
028220105	Right-of-Way Brace Post		51	Each	
02861005*	Precast Noise Wall 13 ft (Specialty Item)		1,810	ft	
02873000*	Construction Work Over Questar HP and IHP Steel Gas Lines		6,510	ft	

Summary Report
Project: SP-0134(2)11
2700 NORTH; I-15 TO WASHINGTON

Version: 1

Detail	Alt Group	Alt #	Description		
10 - ROADWAY	0	0			
Item Number	Description	Qty	Unit		
028960010	Boundary Survey and Survey Plat	1	Lump		
028960020	Right-of-Way Markers	181	Each		
029610030	Rotomilling - 2 Inch	7,230	sq yd		
03310001*	Catch Basin	181	Each		
03310002*	Cleanout Box	52	Each		
03310004*	Standard Diversion Box	12	Each		
03310006*	Irrigation Overflow Box	1	Each		
03310007*	Outlet Structure	1	Each		

Detail	Alt Group	Alt #	Description		
20 - STRUCTURES	0	0	STRUCTURE # E-2515 Western Irrigation Company Box Culvert		
Item Number	Description	Qty	Unit		
032110010	Reinforcing Steel - Coated	2,204	lb		
03310001*	Structural Concrete (Est. Lump Qty: 25.2 cubic yard)	1	Lump		
03320001*	Box Culvert Barrel	1	Lump		

Detail	Alt Group	Alt #	Description		
30 - LANDSCAPING	0	0			
Item Number	Description	Qty	Unit		
01571003P	Silt Fence	250	yd		
02813001*	Re-Establish Sprinkler System	1	Lump		
029110010	Cellulose Fiber Mulch	12	Acre		
02912003P	Strip and Stockpile Topsoil	12	cu yd		
029120040	Spread Stockpiled Topsoil	65,100	sq yd		
02922001*	Drill Seed	8	Acre		
02922003*	Broadcast Seed	4	Acre		
029220060	Turf Sod	8,430	sq ft		

Detail	Alt Group	Alt #	Description		
40 - SIGNING	0	0			
Item Number	Description	Qty	Unit		
028910005	Remove Sign	86	Each		
028910010	Relocation of Sign	14	Each		
028910030	Sign Type A-I, 21 inch X 15 inch	17	Each		

Summary Report
Project: SP-0134(2)11
2700 NORTH; I-15 TO WASHINGTON

Version: 1

Detail	Alt Group	Alt #	Description		
40 - SIGNING	0	0			
Item Number	Description	Qty	Unit		
028910040	Sign Type A-I, 24 inch X 12 inch	17	Each		
02891004P	Sign Type A-I, 24 inch X 24 inch	13	Each		
028910050	Sign Type A-I, 24 inch X 30 inch	22	Each		
028910055	Sign Type A-I, 30 inch X 24 inch	13	Each		
02891005P	Sign Type A-I, 36 inch X 12 inch	18	Each		
028910060	Sign Type A-I, 30 inch X 30 inch	22	Each		
028910065	Sign Type A-I, 36 inch X 36 inch	11	Each		
02891006P	Sign Type A-I, 36 inch X 24 inch	2	Each		
028910070	Sign Type A-I, 48 inch X 48 inch	4	Each		
02891007P	Sign Type A-I, 30 inch X 18 inch	1	Each		
02891008P	Sign Type A-I, 18 Inch Diameter	3	Each		
028910115	Sign Type A-2, 30 inch X 30 inch	21	Each		
028910120	Sign Type A-2, 36 inch X 36 inch	1	Each		
02891013P	Sign Type A-2, 30 inch X 48 inch	2	Each		
02891014P	Sign Type A-2, 24 inch X 24 inch	5	Each		
02891015P	Sign Type A-2, 18 inch X 18 inch	11	Each		
02891020P	Sign Type P-1, 96 inch X 42 inch	1	Each		
02891021P	Sign Type P-1, 66 inch X 18 inch	1	Each		
02891022P	Sign Type P-1, 72 inch X 30 inch	2	Each		
02891023P	Sign Type P-1, 114 inch X 60 inch	3	Each		
02891024P	Sign Type P-1, 102 inch X 54 inch	1	Each		

Detail	Alt Group	Alt #	Description		
50 - SIGNALS	0	0			
Item Number	Description	Qty	Unit		
028920020	Installation of State Furnished Material	1	Lump		
028920025	Installation of State Furnished Mast Arm Mounted Sign	6	Each		
02892003P	Upgrade Traffic Signal System SR-134/1500 West	1	Lump		
02892004P	Upgrade Traffic Signal System SR-134/SR-89	1	Lump		
02892005P	Traffic Signal System Conduit 2700 North/1000 West	1	Lump		
02892006P	Upgrade Traffic Signal System 2600 North/Washington	1	Lump		

Summary Report
Project: SP-0134(2)11
2700 NORTH; I-15 TO WASHINGTON

Version: 1

Detail
70 - ATMS

Alt Group Alt # Description
 0 0

Item Number	Description	Qty	Unit
13553000*	ATMS Conduit 2700 North	1	Lump

X. PDBS Detailed Stationing Summaries Report

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number		Description				Use Qty	Unit
018910020		Move Mailbox				5	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2107+21.00	20.74		LT.	1.0		
2700 N	32+15.00	46.00		RT.	1.0		
2700 N	32+90.00	47.00		RT.	1.0		
2700 N	56+43.39	25.20		RT.	1.0		
2700 N	61+18.96	35.50		RT.	1.0		
					5.0		

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
01892001P	Reconstruct Catch Basin				25	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1500 W	1002+05.56	71.44		LT.	1.0	CB#38A
2700 N	10+08.61	22.13		LT.	1.0	CB#4
2700 N	119+10.05	58.92		LT.	1.0	CB#105
2700 N	13+56.96	44.99		LT.	1.0	CB#12
2700 N	13+57.19	35.19		LT.	1.0	CB#13
2700 N	13+80.42	43.94		RT.	1.0	CB#14
2700 N	154+66.44	62.97		LT.	1.0	CB#123
2700 N	155+10.05	81.24		LT.	1.0	CB#125
2700 N	155+45.03	44.14		LT.	1.0	CB#126
2700 N	16+33.90	44.88		RT.	1.0	CB#16
2700 N	18+62.89	81.55		RT.	1.0	CB#19
2700 N	19+04.08	82.03		RT.	1.0	CB#20
2700 N	19+36.37	49.59		LT.	1.0	CB#20A
2700 N	19+40.51	45.87		RT.	1.0	CB#21
2700 N	30+33.32	25.72		LT.	1.0	CB#30
2700 N	30+35.03	43.91		LT.	1.0	CB#32
2700 N	38+76.05	36.54		LT.	1.0	CB#40
2700 N	42+93.25	42.72		LT.	1.0	CB#45
2700 N	46+72.09	32.47		LT.	1.0	CB#53
2700 N	46+73.12	45.04		LT.	1.0	CB#53A
2700 N	49+03.77	32.34		LT.	1.0	CB#54A
2700 N	60+08.00	34.00		LT.	1.0	CB#62A
2700 N	61+31.00	35.00		LT.	1.0	CB#64
2700 N	69+17.09	74.36		LT.	1.0	CB#76A
2700 N	9+30.41	26.02		LT.	1.0	CB#2
					25.0	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
01892004*	Reconstruct Valve Box				30	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	12+33.81	35.74		LT.	1.0	MONITORING WELL
2700 N	12+34.56	54.36		LT.	1.0	MONITORING WELL
2700 N	12+64.24	37.14		LT.	1.0	MONITORING WELL
2700 N	12+83.88	71.00		LT.	1.0	MONITORING WELL
2700 N	154+73.59	32.78		LT.	1.0	
2700 N	154+95.79	38.23		LT.	1.0	
2700 N	155+14.13	33.64		LT.	1.0	
2700 N	155+54.39	35.31		LT.	1.0	
2700 N	157+84.24	36.66		LT.	1.0	
2700 N	158+12.22	33.17		LT.	1.0	
2700 N	161+59.40	35.38		LT.	1.0	
2700 N	29+31.38	41.68		LT.	1.0	
2700 N	29+68.12	16.76		RT.	1.0	
2700 N	31+36.42	48.42		RT.	1.0	
2700 N	31+38.32	48.07		RT.	1.0	
2700 N	35+19.21	47.94		RT.	1.0	
2700 N	35+23.48	49.25		RT.	1.0	
2700 N	35+26.63	47.93		RT.	1.0	
2700 N	38+57.53	37.23		RT.	1.0	
2700 N	49+30.92	14.14		RT.	1.0	
2700 N	63+48.09	25.87		RT.	1.0	
2700 N	63+49.89	16.46		RT.	1.0	
2700 N	63+58.81	47.35		RT.	1.0	
2700 N	65+68.21	19.58		RT.	1.0	
2700 N	66+40.84	56.95		RT.	1.0	
2700 N	69+16.10	25.79		RT.	1.0	
2700 N	69+23.31	35.99		RT.	1.0	
HILLSB	2800+70.00	2.52		LT.	1.0	
HILLSB	2800+72.60	1.64		RT.	1.0	
PRKLND	900+87.02	13.85		RT.	1.0	
					30.0	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
018920050	Reconstruct Manhole				37	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2104+35.07	15.06		RT.	1.0	MH#2013
2700 N	11+66.38	25.77		LT.	1.0	MH#1003
2700 N	151+65.31	31.64		LT.	1.0	MH#1012
2700 N	153+29.96	30.60		LT.	1.0	MH#1013
2700 N	155+07.96	26.74		LT.	1.0	MH#1014
2700 N	157+64.40	18.13		LT.	1.0	MH#1015
2700 N	158+36.61	16.44		LT.	1.0	MH#1016
2700 N	161+49.90	8.30		LT.	1.0	MH#1017
2700 N	162+82.09	47.04		RT.	1.0	MH#2011
2700 N	19+46.58	55.65		LT.	1.0	MH#1004
2700 N	19+99.78	41.61		LT.	1.0	MH#1005
2700 N	27+49.72	33.30		LT.	1.0	MH#1006
2700 N	34+48.58	27.19		RT.	1.0	MH#2002
2700 N	34+69.60	20.89		LT.	1.0	MH#2002A
2700 N	34+72.00	36.00		RT.	1.0	MH#2002B
2700 N	35+34.53	15.54		LT.	1.0	MH#2003
2700 N	35+39.54	54.29		LT.	1.0	MH#2004
2700 N	41+28.21	40.03		RT.	1.0	MH#2004A
2700 N	49+14.81	52.24		LT.	1.0	MH#2005
2700 N	50+20.54	39.53		LT.	1.0	MH#2006
2700 N	50+52.48	36.25		LT.	1.0	MH#1009
2700 N	51+31.87	28.05		RT.	1.0	MH#2007
2700 N	61+17.51	48.61		RT.	1.0	MH#2007A
2700 N	64+33.14	32.92		RT.	1.0	MH#2008
2700 N	66+62.93	51.14		RT.	1.0	MH#2009
2700 N	66+83.10	47.77		RT.	1.0	MH#1010
2700 N	68+88.47	22.57		RT.	1.0	MH#2009A
2700 N	69+07.35	55.99		LT.	1.0	MH#1011
2700 N	69+61.70	4.24		LT.	1.0	MH#2010
2700 N	9+28.79	4.54		RT.	1.0	MH#2001
2700 N	9+59.84	22.77		LT.	1.0	MH#1002
600 W	2404+78.17	20.50		LT.	1.0	MH#2015
600 W	2502+18.57	13.42		LT.	1.0	MH#2016

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
HILLSB	2701+43.96	2.25		LT.	1.0	MH#2017
HILLSB	2800+67.44	2.37		LT.	1.0	MH#2018
HILLSB	2801+01.01	6.90		RT.	1.0	MH#2019
SR-89	2005+91.22	36.06		RT.	1.0	MH#2012
					<hr/> 37.0	

01892006*

Reconstruct Monument Box

3 Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	35+48.32	0.37		LT.	1.0	
2700 N	61+80.69	0.08		LT.	1.0	
2700 N	88+35.33	29.17		LT.	1.0	
					<hr/> 3.0	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02056001*	Granular Borrow				121,700	cu yd
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2100+00.00		2106+59.91	RT.	842.0	PAVEMENT DETAIL G
1000 W	2106+59.91		2108+39.99	RT.	168.0	PAVEMENT DETAIL G
1000 W	2108+39.99		2108+78.87	RT.	106.0	PAVEMENT DETAIL B
1000 W	2200+42.32		2200+81.19	LT/RT	168.0	PAVEMENT DETAIL A
1000 W	2200+43.14		2200+81.19	RT.	77.0	PAVEMENT DETAIL B
1000 W	2200+81.19		2202+52.36	RT.	94.0	PAVEMENT DETAIL G
1000 W	2202+52.36		2203+52.81	RT.	62.0	PAVEMENT DETAIL G
1500 W	1000+38.58		1002+65.37	LT/RT	529.0	PAVEMENT DETAIL A
1500 W	1100+43.00		1100+85.50	LT/RT	318.0	PAVEMENT DETAIL A
1850 W	400+39.82		401+56.70	LT/RT	569.0	PAVEMENT DETAIL A
1850 W	500+41.97		500+76.88	LT/RT	181.0	PAVEMENT DETAIL A
2700 N	154+30.96		155+46.52	LT.	223.0	PAVEMENT DETAIL B
2700 N	154+67.57		161+00.00	RT.	2,541.0	PAVEMENT DETAIL B
2700 N	161+00.00		163+58.78	LT/RT	2,004.0	PAVEMENT DETAIL B
2700 N	21+34.43		26+50.00	LT/RT	4,379.0	PAVEMENT DETAIL A
2700 N	26+50.00		43+00.00	LT.	5,899.0	PAVEMENT DETAIL A
2700 N	26+50.00		43+00.00	RT.	2,435.0	PAVEMENT DETAIL A
2700 N	37+71.31		38+14.20	RT.	174.0	PAVEMENT DETAIL A
2700 N	43+00.00		48+50.00	LT.	1,952.0	PAVEMENT DETAIL A
2700 N	43+00.00		48+50.00	RT.	2,047.0	PAVEMENT DETAIL A
2700 N	48+50.00		49+61.13	LT.	429.0	PAVEMENT DETAIL A
2700 N	48+50.00		49+82.41	RT.	528.0	PAVEMENT DETAIL A
2700 N	49+51.01		51+00.00	LT.	599.0	PAVEMENT DETAIL A
2700 N	49+72.29		51+00.00	RT.	500.0	PAVEMENT DETAIL A
2700 N	51+00.00		62+22.84	LT.	3,153.0	PAVEMENT DETAIL A
2700 N	51+00.00		62+63.19	RT.	3,709.0	PAVEMENT DETAIL A
2700 N	62+78.69		69+52.70	LT.	1,232.0	PAVEMENT DETAIL A
2700 N	63+14.88		69+52.70	RT.	1,191.0	PAVEMENT DETAIL A
2700 N	69+52.70		154+67.57	LT/RT	68,927.0	PAVEMENT DETAIL B
2700 N	8+80.00		9+60.00	LT/RT	1,315.0	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	RT.	3,149.0	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	LT.	3,824.0	PAVEMENT DETAIL A
600 W	2403+35.00		2405+00.00	LT/RT	215.0	PAVEMENT DETAIL G

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
600 W	2405+00.00		2406+68.80	LT/RT	369.0	PAVEMENT DETAIL G
600 W	2406+68.80		2407+22.98	LT/RT	302.0	PAVEMENT DETAIL B
600 W	2500+35.55		2500+89.72	LT/RT	302.0	PAVEMENT DETAIL B
600 W	2500+89.72		2502+71.66	LT/RT	398.0	PAVEMENT DETAIL G
600 W	2502+71.66		2503+36.18	LT.	73.0	PAVEMENT DETAIL G
600 W	2502+71.66		2505+21.08	LT/RT	229.0	PAVEMENT DETAIL G
HILLSB	2700+41.12		2700+83.87	LT/RT	227.0	PAVEMENT DETAIL B
HILLSB	2700+83.87		2702+07.56	LT.	85.0	PAVEMENT DETAIL G
HILLSB	2700+83.87		2702+80.20	RT.	176.0	PAVEMENT DETAIL G
HILLSB	2800+42.89		2800+84.13	LT/RT	229.0	PAVEMENT DETAIL B
HILLSB	2800+84.13		2801+10.00	LT/RT	46.0	PAVEMENT DETAIL G
PRKLND	900+41.19		900+89.57	LT/RT	336.0	PAVEMENT DETAIL A
SR-89	1999+70.87		2005+90.87	RT.	1,312.0	PAVEMENT DETAIL F
SR-89	2008+49.06		2012+83.50	RT.	844.0	PAVEMENT DETAIL F
SR-89	2014+97.40		2016+78.05	RT.	736.0	PAVEMENT DETAIL A
SR-89	2016+54.79		2017+16.50	LT.	105.0	PAVEMENT DETAIL A
SR-89	2017+58.77		2018+28.57	RT.	85.0	PAVEMENT DETAIL A
SR-89	2018+16.44		2019+76.00	LT.	623.0	PAVEMENT DETAIL A
SR-89	2018+17.40		2021+06.61	RT.	180.0	PAVEMENT DETAIL F
SR-89	2019+76.00		2024+21.00	LT.	725.0	PAVEMENT DETAIL F
WSATCH	800+39.95		801+79.93	LT/RT	477.0	PAVEMENT DETAIL A
WSATCH	850+40.74		850+78.36	LT/RT	246.0	PAVEMENT DETAIL A

121,644.0

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02061004*	Underdrain Granular Backfill				3,200	cu yd
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	100+60.00	44.00	102+70.00	44.00LT.	34.03	
2700 N	100+77.00	44.00	102+70.00	44.00RT.	31.27	
2700 N	102+70.00	44.00	105+20.00	44.00RT.	40.51	
2700 N	102+70.00	44.00	105+20.00	44.00LT.	40.51	
2700 N	105+20.00	44.00	107+70.00	44.00LT.	40.51	
2700 N	105+20.00	44.00	107+70.00	44.00RT.	40.51	
2700 N	107+70.00	44.00	110+70.00	44.00LT.	48.45	
2700 N	107+70.00	44.00	110+70.00	44.00RT.	48.77	
2700 N	110+70.00	44.00	113+20.00	44.00RT.	40.67	
2700 N	110+70.00	44.00	113+20.00	44.00LT.	40.35	
2700 N	113+20.00	44.00	115+70.00	44.00LT.	40.35	
2700 N	113+20.00	44.00	115+70.00	44.00RT.	40.67	
2700 N	115+70.00	44.00	118+27.00	44.00LT.	41.48	
2700 N	115+70.00	44.00	118+27.00	44.00RT.	41.81	
2700 N	118+27.00	44.00	119+16.10	44.00RT.	14.58	
2700 N	118+27.00	44.00	119+50.00	44.00LT.	19.77	
2700 N	119+16.10	44.00	119+50.00	44.00RT.	5.51	
2700 N	119+50.00	44.00	121+46.00	44.00LT.	31.6	
2700 N	119+50.00	44.00	121+46.00	44.00RT.	31.92	
2700 N	121+46.00	44.00	123+40.00	44.00LT.	31.44	
2700 N	121+46.00	44.00	123+40.00	44.00RT.	31.44	
2700 N	123+40.00	44.00	125+32.00	44.00LT.	31.11	
2700 N	123+40.00	44.00	125+32.00	44.00RT.	31.11	
2700 N	125+32.00	44.00	127+88.00	44.00LT.	41.48	
2700 N	125+32.00	44.00	127+88.00	44.00RT.	41.48	
2700 N	127+88.00	44.00	130+72.00	44.00RT.	46.02	
2700 N	127+88.00	44.00	130+72.00	44.00LT.	46.02	
2700 N	130+72.00	44.00	133+56.39	44.00RT.	46.67	
2700 N	130+72.00	44.00	133+77.00	44.00LT.	48.77	
2700 N	133+57.60	39.00	133+58.17	46.50LT/RT	399.75	UNDERDRAIN FOR SPRING DRAINAGE
2700 N	133+77.00	44.00	135+55.63	44.00LT.	28.68	
2700 N	133+77.00	44.00	135+61.00	44.00RT.	30.14	
2700 N	135+55.63	44.00	136+78.00	44.00LT.	19.77	

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	135+61.00	44.00	136+78.00	44.00RT.	19.12	
2700 N	136+78.00	44.00	138+90.00	44.00LT.	34.51	
2700 N	136+78.00	44.00	138+90.00	44.00RT.	34.19	
2700 N	138+90.00	44.00	141+00.00	44.00RT.	33.7	
2700 N	138+90.00	44.00	141+00.00	44.00LT.	34.35	
2700 N	141+00.00	44.00	143+03.00	44.00LT.	33.22	
2700 N	141+00.00	44.00	143+03.00	44.00RT.	32.57	
2700 N	143+03.00	44.00	145+60.00	44.00LT.	41.64	
2700 N	143+03.00	44.00	145+60.00	44.00RT.	41.64	
2700 N	145+60.00	44.00	148+31.00	44.00RT.	44.07	
2700 N	145+60.00	44.00	148+31.00	44.00LT.	43.75	
2700 N	148+31.00	44.00	151+29.00	44.00LT.	48.45	
2700 N	148+31.00	44.00	151+29.00	44.00RT.	48.13	
2700 N	151+29.00	44.00	153+30.00	44.00RT.	32.57	
2700 N	151+29.00	44.00	153+30.00	44.00LT.	32.57	
2700 N	153+30.00	44.00	154+30.96	44.00LT.	16.37	
2700 N	153+30.00	44.00	155+08.00	44.00RT.	28.84	
2700 N	155+08.00	44.00	158+37.00	44.00RT.	53.31	
2700 N	158+37.00	44.00	161+50.00	44.00RT.	50.72	
2700 N	161+50.00	44.00	162+63.49	44.00RT.	18.31	
2700 N	69+97.12	44.00	70+16.00	44.00LT.	3.08	
2700 N	70+16.00	44.00	72+22.00	44.00RT.	33.38	
2700 N	70+16.00	44.00	72+22.00	44.00LT.	33.38	
2700 N	72+22.00	44.00	74+65.00	44.00RT.	39.38	
2700 N	72+22.00	44.00	74+65.00	44.00LT.	39.38	
2700 N	74+65.00	44.00	75+98.00	44.00RT.	21.55	
2700 N	74+65.00	44.00	75+98.00	44.00LT.	21.55	
2700 N	77+00.00	44.00	79+39.00	44.00RT.	38.73	
2700 N	77+00.00	44.00	79+39.00	44.00LT.	38.73	
2700 N	79+39.00	44.00	81+60.00	44.00RT.	35.81	
2700 N	79+39.00	44.00	81+60.00	44.00LT.	35.81	
2700 N	81+60.00	44.00	83+90.00	44.00LT.	37.43	
2700 N	81+60.00	44.00	83+90.00	44.00RT.	37.11	
2700 N	83+90.00	44.00	86+20.00	44.00LT.	37.43	
2700 N	83+90.00	44.00	86+20.00	44.00RT.	37.11	
2700 N	86+20.00	44.00	87+90.00	44.00LT.	27.71	

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Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	86+20.00	44.00	87+90.00	44.00RT.	27.38	
2700 N	89+20.00	44.00	91+80.00	44.00LT.	42.29	
2700 N	89+20.00	44.00	91+80.00	44.00RT.	41.97	
2700 N	91+80.00	44.00	94+35.00	44.00LT.	41.48	
2700 N	91+80.00	44.00	94+35.00	44.00RT.	41.16	
2700 N	94+35.00	44.00	96+90.00	44.00RT.	41.32	
2700 N	94+35.00	44.00	96+90.00	44.00LT.	41.32	
2700 N	96+90.00	44.00	99+31.05	47.71LT.	39.05	
2700 N	96+90.00	44.00	99+41.00	44.00RT.	40.67	
2700 N	99+31.05	47.71	100+60.00	44.00LT.	20.9	
2700 N	99+41.00	44.00	100+77.00	44.00RT.	22.04	
					<hr/> 3,186.33	

02075001* Geotextiles - Separation

96,400 sq yd

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2108+39.99		2108+78.87	RT.	136.0	PAVEMENT DETAIL B
1000 W	2200+43.14		2200+81.19	RT.	99.0	PAVEMENT DETAIL B
2700 N	154+30.96		155+46.52	LT.	287.0	PAVEMENT DETAIL B
2700 N	154+67.57		161+00.00	RT.	3,267.0	PAVEMENT DETAIL B
2700 N	161+00.00		163+58.78	LT/RT	2,577.0	PAVEMENT DETAIL B
2700 N	69+52.70		154+67.57	LT/RT	88,621.0	PAVEMENT DETAIL B
600 W	2406+68.80		2407+22.98	LT/RT	388.0	PAVEMENT DETAIL B
600 W	2500+35.55		2500+89.72	LT/RT	388.0	PAVEMENT DETAIL B
HILLSB	2700+41.12		2700+83.87	LT/RT	292.0	PAVEMENT DETAIL B
HILLSB	2800+42.89		2800+84.13	LT/RT	294.0	PAVEMENT DETAIL B
					<hr/> 96,349.0	

020750020 Geotextiles - Erosion Control

100 sq yd

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	21+15.00		21+58.80	LT.	95.0	
					<hr/> 95.0	

Detailed Report

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number		Description				Use Qty	Unit
020750030		Geotextiles - Drainage				25,800	sq yd
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	100+60.00	44.00	102+70.00	44.00LT.	315.0		
2700 N	100+77.00	44.00	102+70.00	44.00RT.	289.5		
2700 N	102+70.00	44.00	105+20.00	44.00LT.	375.0		
2700 N	102+70.00	44.00	105+20.00	44.00RT.	375.0		
2700 N	105+20.00	44.00	107+70.00	44.00LT.	375.0		
2700 N	105+20.00	44.00	107+70.00	44.00RT.	375.0		
2700 N	107+70.00	44.00	110+70.00	44.00LT.	448.5		
2700 N	107+70.00	44.00	110+70.00	44.00RT.	451.5		
2700 N	110+70.00	44.00	113+20.00	44.00LT.	373.5		
2700 N	110+70.00	44.00	113+20.00	44.00RT.	376.5		
2700 N	113+20.00	44.00	115+70.00	44.00LT.	373.5		
2700 N	113+20.00	44.00	115+70.00	44.00RT.	376.5		
2700 N	115+70.00	44.00	118+27.00	44.00LT.	384.0		
2700 N	115+70.00	44.00	118+27.00	44.00RT.	387.0		
2700 N	118+27.00	44.00	119+16.10	44.00RT.	135.0		
2700 N	118+27.00	44.00	119+50.00	44.00LT.	183.0		
2700 N	119+16.10	44.00	119+50.00	44.00RT.	51.0		
2700 N	119+50.00	44.00	121+46.00	44.00RT.	295.5		
2700 N	119+50.00	44.00	121+46.00	44.00LT.	292.5		
2700 N	121+46.00	44.00	123+40.00	44.00RT.	291.0		
2700 N	121+46.00	44.00	123+40.00	44.00LT.	291.0		
2700 N	123+40.00	44.00	125+32.00	44.00RT.	288.0		
2700 N	123+40.00	44.00	125+32.00	44.00LT.	288.0		
2700 N	125+32.00	44.00	127+88.00	44.00LT.	384.0		
2700 N	125+32.00	44.00	127+88.00	44.00RT.	384.0		
2700 N	127+88.00	44.00	130+72.00	44.00LT.	426.0		
2700 N	127+88.00	44.00	130+72.00	44.00RT.	426.0		
2700 N	130+72.00	44.00	133+56.39	44.00RT.	432.0		
2700 N	130+72.00	44.00	133+77.00	44.00LT.	451.5		
2700 N	133+77.00	44.00	135+55.63	44.00LT.	265.5		
2700 N	133+77.00	44.00	135+61.00	44.00RT.	279.0		
2700 N	135+55.63	44.00	136+78.00	44.00LT.	183.0		
2700 N	135+61.00	44.00	136+78.00	44.00RT.	177.0		

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	136+78.00	44.00	138+90.00	44.00LT.	319.5	
2700 N	136+78.00	44.00	138+90.00	44.00RT.	316.5	
2700 N	138+90.00	44.00	141+00.00	44.00RT.	312.0	
2700 N	138+90.00	44.00	141+00.00	44.00LT.	318.0	
2700 N	141+00.00	44.00	143+03.00	44.00LT.	307.5	
2700 N	141+00.00	44.00	143+03.00	44.00RT.	301.5	
2700 N	143+03.00	44.00	145+60.00	44.00LT.	385.5	
2700 N	143+03.00	44.00	145+60.00	44.00RT.	385.5	
2700 N	145+60.00	44.00	148+31.00	44.00RT.	408.0	
2700 N	145+60.00	44.00	148+31.00	44.00LT.	405.0	
2700 N	148+31.00	44.00	151+29.00	44.00LT.	448.5	
2700 N	148+31.00	44.00	151+29.00	44.00RT.	445.5	
2700 N	151+29.00	44.00	153+30.00	44.00RT.	301.5	
2700 N	151+29.00	44.00	153+30.00	44.00LT.	301.5	
2700 N	153+30.00	44.00	154+30.96	44.00LT.	151.5	
2700 N	153+30.00	44.00	155+08.00	44.00RT.	267.0	
2700 N	155+08.00	44.00	158+37.00	44.00RT.	493.5	
2700 N	158+37.00	44.00	161+50.00	44.00RT.	469.5	
2700 N	161+50.00	44.00	162+63.49	44.00RT.	169.5	
2700 N	69+97.12	44.00	70+16.00	44.00LT.	28.5	
2700 N	70+16.00	44.00	72+22.00	44.00RT.	309.0	
2700 N	70+16.00	44.00	72+22.00	44.00LT.	309.0	
2700 N	72+22.00	44.00	74+65.00	44.00RT.	364.5	
2700 N	72+22.00	44.00	74+65.00	44.00LT.	364.5	
2700 N	74+65.00	44.00	75+98.00	44.00RT.	199.5	
2700 N	74+65.00	44.00	75+98.00	44.00LT.	199.5	
2700 N	77+00.00	44.00	79+39.00	44.00RT.	358.5	
2700 N	77+00.00	44.00	79+39.00	44.00LT.	358.5	
2700 N	79+39.00	44.00	81+60.00	44.00RT.	331.5	
2700 N	79+39.00	44.00	81+60.00	44.00LT.	331.5	
2700 N	81+60.00	44.00	83+90.00	44.00LT.	346.5	
2700 N	81+60.00	44.00	83+90.00	44.00RT.	343.5	
2700 N	83+90.00	44.00	86+20.00	44.00LT.	346.5	
2700 N	83+90.00	44.00	86+20.00	44.00RT.	343.5	
2700 N	86+20.00	44.00	87+90.00	44.00LT.	256.5	
2700 N	86+20.00	44.00	87+90.00	44.00RT.	253.5	

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Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	89+20.00	44.00	91+80.00	44.00LT.	391.5	
2700 N	89+20.00	44.00	91+80.00	44.00RT.	388.5	
2700 N	91+80.00	44.00	94+35.00	44.00LT.	384.0	
2700 N	91+80.00	44.00	94+35.00	44.00RT.	381.0	
2700 N	94+35.00	44.00	96+90.00	44.00RT.	382.5	
2700 N	94+35.00	44.00	96+90.00	44.00LT.	382.5	
2700 N	96+90.00	44.00	99+31.05	47.71LT.	361.5	
2700 N	96+90.00	44.00	99+41.00	44.00RT.	376.5	
2700 N	99+31.05	47.71	100+60.00	44.00LT.	193.5	
2700 N	99+41.00	44.00	100+77.00	44.00RT.	204.0	
					<hr/>	
					25,795.5	

02076001* 70 Inch Pipe Casing

100 ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	49+44.44	52.00	50+40.44	52.00RT.	96.0	48" TONGUE-AND-GROOVE PIPE INCL.
					<hr/>	
					96.0	

02076002* 24 Inch Steel Casing

25 ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	62+37.91	47.03	62+58.72	48.20RT.	20.84	
					<hr/>	
					20.84	

02079001* 8 Inch PVC Waterline

690 ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	100+10.50	75.00	100+39.50	85.00LT/RT	162.61	GAS LINE CASING
2700 N	118+59.50	70.00	118+63.50	85.00RT/LT	155.05	GAS LINE CASING
2700 N	13+15.47	24.69	13+15.47	36.00RT.	11.31	
2700 N	154+63.00	55.00	154+63.00	73.00RT/LT	128.0	GAS LINE CASING
2700 N	19+10.53	35.81	19+10.55	27.96RT.	7.85	
2700 N	22+10.92	58.83	22+20.04	36.00LT/RT	95.26	
2700 N	9+66.09	84.47	9+67.76	36.00LT/RT	120.51	
					<hr/>	
					680.59	

Detailed Report

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02079002*	10 Inch PVC Waterline					2,320	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	12+91.31	36.00	12+93.17	157.13RT.	121.15		
2700 N	25+18.75	36.00	31+30.53	38.00RT.	609.88		
2700 N	29+67.96	22.06	29+67.96	38.00RT.	15.94		
2700 N	31+30.53	38.00	31+38.40	42.48RT.	9.75		
2700 N	9+67.75	36.00	25+18.75	36.00RT.	1,553.5		
					2,310.22		
02079003*	8 Inch Ductile Iron Waterline					290	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	143+09.53	63.70	143+16.89	75.73RT/LT	139.62		
2700 N	153+17.25	104.39	153+21.75	38.00RT/LT	142.46		
					282.08		
02079004*	10 Inch Ductile Iron Waterline					2,000	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	136+24.90	75.38	136+25.41	75.57RT/LT	150.95		
2700 N	136+26.04	38.00	154+50.31	38.00LT.	1,824.27		
2700 N	154+50.31	38.00	154+66.59	33.67LT.	16.85		
					1,992.07		

Detailed Report

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02079005*	4 Inch PVC Secondary Waterline					1,300	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	100+16.00	70.00	100+43.00	80.00LT/RT	152.41	TELEPHONE CASING	
2700 N	118+55.00	69.00	118+60.00	114.00R/L	183.07	TELEPHONE CASING	
2700 N	135+70.00	68.00	135+80.00	68.00LT/RT	136.37	TELEPHONE CASING	
2700 N	143+44.00	57.71	148+11.90	61.90LT.	465.5		
2700 N	152+28.20	60.00	154+32.93	60.00LT.	204.73		
2700 N	154+32.93	60.00	154+60.10	75.90LT.	31.76		
2700 N	154+58.00	55.00	154+58.00	70.00RT/LT	125.0	TELEPHONE CASING	
					1,298.84		
02079006*	12 Inch PVC Secondary Waterline					460	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	151+63.95	70.00	151+68.01	50.38RT/LT	120.45		
2700 N	151+68.01	50.38	154+68.01	50.38LT.	300.3		
2700 N	154+68.01	50.38	154+68.01	82.00LT.	31.48		
					452.23		
02079010*	4 Inch Gate Valve					1	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	148+05.50	62.00		LT.	1.0		
					1.0		
02079011*	6 Inch Gate Valve					1	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	15+57.48	38.16		RT.	1.0		
					1.0		

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number		Description				Use Qty	Unit
02079012*		8 Inch Gate Valve				4	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	13+15.47	33.82		RT.	1.0		
2700 N	19+10.63	30.70		RT.	1.0		
2700 N	19+59.56	38.23		RT.	1.0		
2700 N	22+19.84	33.89		RT.	1.0		
					4.0		
02079013*		10 Inch Gate Valve				12	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	12+86.30	36.00		RT.	1.0		
2700 N	12+91.31	41.00		RT.	1.0		
2700 N	136+25.14	55.70		RT.	1.0		
2700 N	136+26.15	54.31		LT.	1.0		
2700 N	136+46.63	38.00		LT.	1.0		
2700 N	143+12.47	38.00		LT.	1.0		
2700 N	143+17.23	38.00		LT.	1.0		
2700 N	153+19.25	38.00		LT.	1.0		
2700 N	153+24.25	38.00		LT.	1.0		
2700 N	19+05.44	35.71		RT.	1.0		
2700 N	19+15.62	35.92		RT.	1.0		
2700 N	29+67.96	35.82		RT.	1.0		
					12.0		
02079020*		Fire Hydrant				4	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	136+64.93	48.00		LT.	1.0		
2700 N	140+93.45	48.00		LT.	1.0		
2700 N	145+62.11	48.00		LT.	1.0		
2700 N	150+58.71	48.00		LT.	1.0		
					4.0		

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02079021*	Relocate Fire Hydrant					2	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	57+40.60	48.00		RT.	1.0		
2700 N	68+98.28	48.95		RT.	1.0		
					2.0		
02079030*	Loop 6 Inch Waterline					1	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	65+67.67	57.65		LT.	1.0		
					1.0		
02079031*	Loop 10 Inch Waterline					1	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	21+74.37	36.31		RT.	1.0		
					1.0		
02079032*	Reconnect Service Line					4	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	14+85.63	36.00		RT.	1.0		
2700 N	15+64.33	35.97		RT.	1.0		
2700 N	17+02.72	35.88		RT.	1.0		
2700 N	36+06.13	48.12		RT.	1.0		
					4.0		

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02221001*	Remove Waterline					1,040	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	13+10.47	24.81	13+20.47	24.57RT.	10.0		
2700 N	14+80.48	21.35	14+90.48	21.28RT.	10.0		
2700 N	15+52.20	20.92	15+69.15	20.84RT.	16.95		
2700 N	15+57.18	20.91	15+57.45	35.97RT.	15.06		
2700 N	151+63.95	70.00	151+68.01	50.38RT/LT	120.5	12" SECONDARY WATER	
2700 N	151+68.01	50.38	154+68.05	50.17LT.	297.0	4" SECONDARY WATER	
2700 N	152+28.20	60.00	154+59.60	56.84LT.	231.67	4" SECONDARY WATER	
2700 N	154+59.60	56.84	154+60.10	75.90LT.	19.06	3" SECONDARY WATER	
2700 N	154+68.01	50.38	154+68.83	82.00LT.	31.63	12" SECONDARY WATER	
2700 N	16+97.73	21.86	17+07.70	22.02RT.	10.0		
2700 N	19+05.18	27.73	19+16.09	27.76RT.	10.0		
2700 N	19+54.22	26.51	19+64.19	26.21RT.	10.0		
2700 N	19+59.21	26.37	19+59.49	36.05RT.	9.69		
2700 N	2+20.81	18.34	2+30.00	18.29RT.	9.2		
2700 N	22+10.92	58.83	22+16.68	0.80LT/RT	59.91		
2700 N	22+11.70	1.28	22+21.66	0.32RT.	10.0		
2700 N	29+62.96	22.07	29+72.96	22.06RT.	10.0		
2700 N	31+38.38	43.89	31+39.81	42.50RT.	2.0		
2700 N	35+22.83	37.91	35+23.40	47.91RT.	10.0		
2700 N	46+54.01	37.40	46+54.04	42.40RT.	5.0		
2700 N	63+40.83	16.40	63+45.83	16.42RT.	5.0		
2700 N	69+08.15	42.93	69+23.27	43.12RT.	15.12		
2700 N	9+66.52	32.02	9+66.52	84.50RT/LT	116.52		
					1,034.31		

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02221002*	Remove Valve					13	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	13+15.32	19.67		RT.	1.0		
2700 N	147+97.68	28.13		LT.	1.0		
2700 N	15+57.21	23.93		RT.	1.0		
2700 N	15+64.17	24.02		RT.	1.0		
2700 N	19+06.27	27.76		RT.	1.0		
2700 N	19+10.55	22.94		RT.	1.0		
2700 N	19+15.00	27.94		RT.	1.0		
2700 N	19+59.23	30.07		RT.	1.0		
2700 N	22+16.68	0.80		RT.	1.0		
2700 N	35+22.28	28.24		RT.	1.0		
2700 N	63+40.73	16.41		RT.	1.0		
2700 N	9+60.06	32.03		RT.	1.0		
2700 N	9+66.47	27.44		RT.	1.0		
					13.0		

022210025	Remove Manhole					5	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	12+82.58	59.69		RT.	1.0		
2700 N	21+60.23	51.86		LT.	1.0		
2700 N	22+38.49	39.46		RT.	1.0		
2700 N	9+10.46	26.37		LT.	1.0		
2700 N	9+78.50	42.42		LT.	1.0		
					5.0		

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10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
022210030	Remove Catch Basin					8	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1500 W	1001+57.67	71.14		LT.	1.0		
2700 N	11+66.14	30.10		LT.	1.0		
2700 N	11+72.24	46.14		RT.	1.0		
2700 N	12+65.87	83.22		RT.	1.0		
2700 N	18+25.79	47.43		RT.	1.0		
2700 N	64+02.30	47.80		RT.	1.0		
2700 N	64+03.11	32.24		RT.	1.0		
2700 N	9+28.86	63.69		RT.	1.0		
					8.0		
02221004*	Remove Concrete Structure					9	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	142+96.64	50.71		RT.	1.0		
2700 N	147+92.01	42.64		RT.	1.0		
2700 N	158+59.00	54.75		RT.	1.0		
2700 N	159+50.00	56.50		RT.	1.0		
2700 N	160+10.00	58.00		RT.	1.0		
2700 N	160+60.00	59.00		RT.	1.0		
2700 N	161+55.00	60.00		RT.	1.0		
2700 N	21+45.00	53.00		LT.	1.0		
2700 N	21+48.00	54.00		LT.	1.0		
					9.0		
02221005*	Remove Block Wall					65	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	26+34.81	65.77	26+56.38	69.42LT.	63.0		
					63.0		

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
022210050	Remove Tree				23	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	126+44.00	70.00		LT.	1.0	
2700 N	134+36.00	32.00		LT.	1.0	
2700 N	138+54.00	37.00		RT.	1.0	
2700 N	27+22.00	47.00		LT.	1.0	
2700 N	46+46.00	77.00		RT.	1.0	
2700 N	46+47.00	50.00		RT.	1.0	
2700 N	46+65.00	65.00		RT.	1.0	
2700 N	47+14.00	29.00		RT.	1.0	
2700 N	55+87.00	36.00		RT.	1.0	
2700 N	55+95.00	72.00		RT.	1.0	
2700 N	57+25.00	69.00		RT.	1.0	
2700 N	67+16.00	48.00		RT.	1.0	
2700 N	70+90.00	38.00		RT.	1.0	
2700 N	72+88.00	22.00		RT.	1.0	
2700 N	73+14.00	4.00		RT.	1.0	
2700 N	73+48.00	30.00		RT.	1.0	
2700 N	75+17.00	12.00		RT.	1.0	
2700 N	76+41.00	19.00		RT.	1.0	
2700 N	77+92.00	47.00		RT.	1.0	
2700 N	78+36.00	85.00		LT.	1.0	
2700 N	83+00.00	6.00		LT.	1.0	
2700 N	85+96.00	48.00		LT.	1.0	
2700 N	86+84.00	67.00		LT.	1.0	
					23.0	
02221006*	Remove Buried Fuel Tank				1	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	61+00.00	110.00		LT.	1.0	
					1.0	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02221007*	Remove Building, Basement, and Foundation Parcel # 0134:26					1	Parcel
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	61+00.00			LT.	1.0		
					1.0		
02221008*	Remove Building, Basement, and Foundation Parcel #0134:47S					1	Parcel
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	140+55.00			RT.	1.0		
					1.0		

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
022210080	Remove Fence					14,110	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	100+87.70	75.53	101+62.19	75.36LT/RT	171.0		
2700 N	103+23.73	74.64	104+74.30	74.69RT/LT	219.0		
2700 N	108+47.81	67.98	108+68.84	73.25LT/RT	143.0		
2700 N	114+71.81	70.52	114+87.96	59.12LT.	21.0		
2700 N	114+86.00	70.23	114+98.19	69.96LT.	27.0		
2700 N	117+04.48	71.59	117+09.06	75.00LT/RT	147.0		
2700 N	119+22.77	57.33	119+26.67	77.45LT/RT	135.0		
2700 N	119+22.92	56.97	123+71.89	60.84LT.	457.0		
2700 N	123+73.94	66.46	133+71.14	47.25LT.	996.0		
2700 N	133+62.47	69.55	133+67.47	47.95RT/LT	118.0		
2700 N	138+59.47	68.83	138+78.16	65.82RT/LT	136.0		
2700 N	140+09.59	168.67	140+42.56	71.13RT.	103.0		
2700 N	140+42.54	23.18	140+62.14	37.73RT.	72.0		
2700 N	140+66.08	3.36	140+94.55	82.95RT/LT	91.0		
2700 N	142+11.76	69.90	142+13.27	55.02RT.	16.0		
2700 N	142+13.27	55.02	142+74.25	60.31RT.	45.0		
2700 N	142+24.21	70.73	147+98.43	33.47LT.	576.0		
2700 N	142+73.46	71.80	142+82.46	66.02RT/LT	138.0		
2700 N	143+23.52	63.06	143+24.35	2.56LT.	61.0		
2700 N	143+24.35	2.56	143+25.51	72.65LT/RT	75.0		
2700 N	143+24.35	2.56	147+63.74	24.17LT/RT	441.0		
2700 N	145+39.96	52.27	145+44.10	8.80LT/RT	61.0		
2700 N	146+49.89	45.42	146+51.15	71.64LT.	26.0		
2700 N	147+63.74	24.17	147+80.54	35.36RT/LT	62.0		
2700 N	147+63.74	24.17	147+82.03	55.52RT.	51.0		
2700 N	147+73.98	83.09	151+66.23	64.32RT.	412.0		
2700 N	147+82.94	45.03	147+90.44	73.18LT.	29.0		
2700 N	147+98.43	33.47	148+11.71	73.20LT.	42.0		
2700 N	148+57.85	62.87	151+80.28	55.01LT.	324.0		
2700 N	151+65.91	71.73	151+70.15	55.04RT/LT	127.0		
2700 N	151+70.15	55.04	153+23.60	55.43LT.	154.0		
2700 N	154+54.83	0.13	154+54.81	42.35LT/RT	43.0		
2700 N	21+56.36	19.39	31+20.51	56.22RT.	964.0		

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Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	22+74.31	92.34	25+69.51	50.74LT.	307.0	
2700 N	27+33.40	65.00	27+34.11	43.64LT.	21.0	
2700 N	35+02.32	48.18	35+10.63	100.00LT.	55.0	
2700 N	37+60.41	38.11	38+41.14	69.24LT.	106.0	
2700 N	47+30.08	31.59	49+41.15	29.02RT.	211.0	
2700 N	49+64.04	78.11	49+88.86	40.26LT.	47.0	
2700 N	50+02.98	30.65	55+88.25	29.68RT.	586.0	
2700 N	50+22.83	30.18	50+41.06	76.21RT.	50.0	
2700 N	50+23.33	74.65	50+38.91	40.02LT.	38.0	
2700 N	50+25.37	38.83	56+31.94	41.30LT.	610.0	
2700 N	50+91.19	31.10	51+14.65	81.67RT.	56.0	
2700 N	55+27.18	32.36	55+28.18	75.00RT.	43.0	
2700 N	55+88.25	29.68	55+89.09	75.00RT.	45.0	
2700 N	56+29.35	75.64	56+31.94	41.30LT/RT	35.0	
2700 N	57+29.71	75.00	57+29.96	50.24RT.	25.0	
2700 N	57+29.96	50.24	61+10.72	54.99RT.	381.0	
2700 N	57+40.11	31.49	57+41.76	49.51RT.	18.0	
2700 N	61+10.88	47.24	61+12.90	75.00RT.	28.0	
2700 N	67+00.45	37.62	67+00.60	65.62RT.	28.0	
2700 N	67+00.45	37.62	67+18.20	37.91RT.	18.0	
2700 N	67+78.66	39.08	67+98.62	39.42RT.	20.0	
2700 N	68+17.70	38.63	68+97.48	39.83RT.	80.0	
2700 N	69+73.01	110.53	69+73.75	4.10LT/RT	115.0	
2700 N	69+73.75	4.10	71+11.53	6.38RT.	137.0	
2700 N	71+10.81	80.00	71+11.53	6.38LT/RT	87.0	
2700 N	72+41.77	5.63	73+99.64	5.77RT.	158.0	
2700 N	76+94.47	85.00	76+95.43	16.60RT.	68.0	
2700 N	78+29.51	80.00	78+30.22	4.59LT/RT	85.0	
2700 N	78+30.22	4.59	83+61.93	0.45RT.	532.0	
2700 N	79+45.33	80.00	79+46.81	6.25RT.	74.0	
2700 N	83+08.59	118.18	83+14.05	1.30LT/RT	120.0	
2700 N	83+61.96	0.45	83+66.32	77.25RT.	77.0	
2700 N	83+61.96	0.45	85+30.97	22.92RT/LT	171.0	
2700 N	86+29.55	77.00	86+37.13	80.00LT/RT	157.0	
2700 N	87+03.53	1.20	87+77.12	77.00RT/LT	108.0	
2700 N	87+03.53	1.20	90+60.43	54.78RT.	390.0	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	9+18.63	80.74	9+72.27	40.91LT.	93.0	
2700 N	9+22.74	90.14	12+69.65	76.13RT.	362.0	
2700 N	90+72.86	77.00	90+73.85	52.76LT/RT	139.0	
2700 N	92+88.96	78.21	93+14.56	78.25LT/RT	159.0	
2700 N	98+52.14	78.94	99+72.52	60.67RT.	122.0	
600 W	2403+35.00	32.96	2404+42.04	32.56LT.	107.0	
600 W	2403+35.00	1.94	2407+58.53	2.53RT.	424.0	
600 W	2404+38.41	44.85	2404+39.15	32.60LT.	12.0	
600 W	2404+71.94	45.59	2404+83.18	40.33LT.	16.0	
600 W	2407+01.67	32.54	2407+58.53	31.45LT.	57.0	
600 W	2500+00.00	11.16	2502+60.07	9.78RT.	260.0	
600 W	2500+00.00	23.43	2503+50.00	22.78LT.	343.0	
SR-89	2003+91.75	59.45	2005+55.09	60.31RT.	168.0	
SR-89	2009+50.00	60.49	2011+92.28	72.32RT.	254.0	
SR-89	2012+18.60	77.92	2012+32.94	60.32RT.	23.0	
					14,109.0	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
022210095	Remove Pipe Culvert					2,380	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2100+69.63	22.85	2100+94.71	22.53RT.	25.0		
1000 W	2105+27.12	15.41	2105+29.62	31.41RT/LT	47.0		
1500 W	1001+57.67	71.14	1002+05.56	71.44LT.	48.0		
2550 N	2300+88.46	16.15	2300+89.16	22.07RT/LT	38.0		
2700 N	11+72.24	46.14	11+72.73	57.10RT.	11.0		
2700 N	12+24.07	59.19	12+82.58	59.69RT.	59.0		
2700 N	12+80.21	104.77	12+82.58	59.69RT.	45.0		
2700 N	142+96.64	50.71	143+03.00	60.00RT/LT	111.0		
2700 N	153+29.96	30.60	153+31.18	66.65LT.	36.0		
2700 N	161+92.15	59.86	162+43.16	59.06RT.	51.0		
2700 N	18+25.99	48.19	18+62.12	81.81RT.	50.0		
2700 N	21+00.33	48.86	21+60.23	51.86LT.	60.0		
2700 N	21+50.53	59.62	21+79.32	56.45LT/RT	120.0		
2700 N	21+60.23	51.86	22+28.65	2.67LT.	84.0		
2700 N	22+15.29	47.83	22+28.65	2.67LT.	47.0		
2700 N	22+28.65	2.67	22+41.65	50.24LT/RT	55.0		
2700 N	22+45.79	56.98	22+49.72	1.86LT.	55.0		
2700 N	22+59.16	60.60	21+85.59	59.19LT.	26.0		
2700 N	27+49.72	33.30	27+49.72	68.40LT.	35.0		
2700 N	49+66.70	32.40	49+66.77	28.37LT/RT	61.0		
2700 N	50+52.48	36.25	50+72.53	33.88LT.	20.0		
2700 N	50+52.48	36.25	50+84.33	40.09LT/RT	83.0		
2700 N	56+13.45	35.73	56+38.78	35.74RT.	25.0		
2700 N	64+02.09	29.75	64+02.35	47.76RT.	18.0		
2700 N	64+02.09	29.75	64+02.48	53.53RT/LT	83.0		
2700 N	64+02.35	47.76	64+34.71	63.74RT.	35.0		
2700 N	67+77.33	53.72	69+69.50	8.22LT/RT	202.0		
2700 N	78+78.65	49.68	79+04.37	72.06LT.	34.0		
2700 N	79+07.24	75.16	79+13.87	79.63LT.	8.0		
2700 N	8+37.09	34.30	9+10.46	26.37LT.	75.0		
2700 N	9+10.46	26.37	9+31.39	65.61LT/RT	94.0		
2700 N	9+28.86	63.69	11+72.24	46.14RT.	244.0		
2700 N	9+78.50	42.42	13+37.74	51.59LT.	359.0		

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
600 W	2501+75.62	27.14	2501+75.97	5.41LT/RT	33.0	
					<hr/> 2,377.0	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02222000*	Remove Concrete Sidewalk				1,370	sq yd
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2200+60.24	33.38	2200+68.07	37.33LT.	3.0	
2700 N	13+35.45	52.70	13+47.64	53.55LT.	4.0	
2700 N	13+43.26	81.18	13+66.93	56.54RT.	23.0	
2700 N	14+34.80	54.84	14+43.43	61.13LT.	5.0	
2700 N	14+87.55	63.79	14+95.03	57.75LT.	3.0	
2700 N	14+90.88	56.45	15+00.71	56.17RT.	7.0	
2700 N	155+11.57	83.41	155+46.66	49.96LT.	22.0	
2700 N	17+03.99	66.56	18+62.47	84.36LT.	84.0	
2700 N	19+13.22	67.43	19+56.09	52.69LT.	18.0	
2700 N	19+13.57	55.78	19+35.36	68.32RT.	18.0	
2700 N	20+99.72	65.21	25+76.56	34.60LT.	261.0	
2700 N	28+92.12	54.30	29+22.36	80.17LT.	27.0	
2700 N	29+92.33	79.25	30+31.28	50.00LT.	28.0	
2700 N	31+47.15	49.73	31+63.74	49.69RT.	70.0	
2700 N	32+03.74	49.59	32+87.20	49.39RT.	37.0	
2700 N	34+08.75	50.33	34+99.85	50.44LT.	50.0	
2700 N	34+28.28	45.67	34+58.03	76.96RT.	34.0	
2700 N	35+22.01	74.30	35+44.31	48.30RT.	20.0	
2700 N	38+73.09	47.71	42+01.48	57.08LT.	146.0	
2700 N	42+61.16	58.40	43+16.03	58.34LT.	27.0	
2700 N	45+43.00	59.73	45+78.47	57.54LT.	16.0	
2700 N	46+43.43	57.65	46+66.31	51.37LT.	9.0	
2700 N	48+25.00	51.80	48+94.86	52.11LT.	30.0	
2700 N	61+42.32	36.75	61+62.47	62.13LT.	18.0	
2700 N	62+26.87	40.45	62+46.41	42.30RT.	13.0	
2700 N	62+84.80	57.23	63+13.27	44.14LT.	21.0	
2700 N	63+82.24	67.35	65+39.70	60.01RT.	89.0	
2700 N	65+90.43	53.10	67+02.96	39.82RT.	54.0	
2700 N	9+21.84	36.93	12+82.05	47.37LT.	161.0	
HILLSB	2800+55.50	24.24	2801+10.00	20.06LT.	23.0	
SR-89	2015+31.30	63.59	2016+27.24	59.09RT.	42.0	
					1,363.0	

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2700 NORTH; I-15 TO WASHINGTON

Version: 1

02222001* Remove Concrete Driveway

490 sq yd

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	11+00.15	41.46		LT.	52.0	
2700 N	14+64.61	63.79		LT.	83.0	
2700 N	16+36.10	61.4		LT.	48.0	
2700 N	31+85.35	53.64		RT.	52.0	
2700 N	61+64.23	82.17		RT.	144.0	
2700 N	65+66.35	38.32		RT.	105.0	
					484.0	

02222002* Remove Concrete Curb

110 ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	10+76.63	54.94	10+80.04	46.05LT.	11.0	
2700 N	11+20.06	45.91	11+23.25	56.17LT.	12.0	
2700 N	11+23.25	56.17	11+28.51	56.33LT.	4.0	
2700 N	9+96.48	52.73	10+76.63	54.94LT.	80.0	
2700 N	9+96.48	52.73	9+96.53	54.83LT.	2.0	
					109.0	

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02222003*	Remove Concrete Curb and Gutter					6,560	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2200+60.10	25.32	2200+81.19	25.13LT.	21.0		
1500 W	1000+40.11	67.24	1001+00.00	29.87RT.	80.0		
1500 W	1000+49.06	72.19	1001+22.09	30.22LT.	97.0		
2700 N	11+46.92	83.12	11+60.92	83.00RT.	14.0		
2700 N	12+48.94	82.23	12+68.90	103.28RT.	41.0		
2700 N	13+30.70	61.94	14+37.36	49.04LT.	114.0		
2700 N	13+43.46	91.17	18+61.62	82.17RT.	569.0		
2700 N	14+36.25	66.96	14+37.36	49.04LT.	24.0		
2700 N	14+84.80	76.95	18+67.04	77.67LT.	422.0		
2700 N	14+95.44	45.52	15+01.31	74.88RT.	31.0		
2700 N	15+45.21	74.94	15+50.14	45.50RT.	31.0		
2700 N	154+65.00	59.23	154+65.67	81.94LT.	23.0		
2700 N	155+11.53	81.12	155+46.52	45.50LT.	56.0		
2700 N	162+70.21	45.71	163+58.79	45.41RT.	89.0		
2700 N	19+05.56	83.81	21+52.57	44.02RT.	270.0		
2700 N	19+12.78	77.72	21+22.16	57.69LT.	226.0		
2700 N	27+34.66	47.35	29+27.27	89.82LT.	227.0		
2700 N	29+88.01	88.72	35+00.81	45.88LT.	541.0		
2700 N	31+47.17	42.49	32+91.50	42.14RT.	144.0		
2700 N	35+21.86	119.85	38+12.83	144.89RT.	305.0		
2700 N	35+31.47	262.74	37+69.37	200.21RT.	287.0		
2700 N	39+31.15	40.19	42+09.96	89.86LT.	310.0		
2700 N	42+50.44	89.86	45+89.99	84.80LT.	390.0		
2700 N	45+88.23	95.37	45+89.67	85.19RT.	10.0		
2700 N	46+31.01	84.80	48+96.13	45.38LT.	287.0		
2700 N	46+39.58	95.37	46+39.54	85.49RT.	10.0		
2700 N	61+14.52	26.54	61+52.39	87.99LT.	96.0		
2700 N	61+17.08	34.55	62+51.95	48.30RT.	139.0		
2700 N	62+84.76	57.17	64+23.34	37.75LT.	146.0		
2700 N	63+82.24	67.35	67+00.99	28.21RT.	351.0		
2700 N	65+30.39	46.33	65+40.13	57.39RT.	17.0		
2700 N	65+30.54	65.83	65+40.13	57.39RT.	15.0		
2700 N	65+90.07	56.94	66+00.83	46.52RT.	16.0		

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	65+90.07	56.94	66+01.78	65.82RT.	16.0	
2700 N	9+33.55	27.45	12+85.61	76.29LT.	383.0	
HILLSB	2700+00.00	29.86	2701+50.75	20.79LT.	142.0	
HILLSB	2700+00.00	9.44	2702+80.20	16.53RT.	288.0	
HILLSB	2800+00.00	15.11	2800+55.62	20.28LT.	56.0	
HILLSB	2800+01.02	24.13	2801+10.00	22.85RT.	107.0	
SR-89	2014+97.65	50.93	2016+29.19	53.31RT.	132.0	
WSATCH	800+57.87	28.56	800+85.68	28.50LT.	28.0	
					6,551.0	

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02222004*	Remove Asphalt Pavement				61,420	sq yd
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2100+00.13		2108+89.92	RT.	779.0	
1000 W	2104+42.32		2105+11.32	LT.	92.0	
1000 W	2106+18.45		2106+75.45	LT.	117.0	
1000 W	2108+40.00		2108+89.57	LT.	97.0	
1000 W	2200+23.90		2200+81.19	LT.	196.0	
1000 W	2200+24.87		2203+52.81	RT.	143.0	
1000 W	2201+11.48		2201+59.85	RT.	62.0	
1500 W	1000+38.58		1001+00.00	RT.	204.0	
1500 W	1000+43.10		1002+65.37	LT.	299.0	
1850 W	400+39.82		401+56.70	RT.	235.0	
1850 W	400+43.01		400+91.94	LT.	179.0	
1850 W	500+32.78		500+76.88	LT.	120.0	
1850 W	500+43.87		500+76.56	RT.	61.0	
2550 N	2300+39.33		2301+95.61	LT.	288.0	
2550 N	2300+89.33		2301+57.53	RT.	14.0	
2700 N	118+72.05		119+10.36	LT.	172.0	
2700 N	118+75.94		119+11.33	RT.	157.0	
2700 N	12+47.91		12+66.48	RT.	21.0	
2700 N	14+99.06		15+46.55	RT.	131.0	
2700 N	154+67.56		155+40.45	LT.	210.0	
2700 N	160+81.84		163+58.79	RT.	890.0	
2700 N	161+00.00		163+58.79	LT.	1,249.0	
2700 N	31+65.00		32+05.00	RT.	44.0	
2700 N	32+97.00		33+38.19	RT.	103.0	
2700 N	37+68.82		38+14.20	RT.	201.0	
2700 N	43+00.00		48+50.00	LT.	2,118.0	
2700 N	43+00.00		48+50.00	RT.	559.0	
2700 N	48+50.00		49+61.33	LT.	330.0	
2700 N	48+50.00		49+65.98	RT.	123.0	
2700 N	49+64.10		51+00.00	LT.	232.0	
2700 N	49+72.23		51+00.00	RT.	127.0	
2700 N	51+00.00		64+96.65	LT.	622.0	
2700 N	51+00.00		64+96.65	RT.	1,049.0	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	56+15.61		56+37.72	RT.	105.0	
2700 N	60+00.34		61+60.65	LT.	1,707.0	
2700 N	64+96.65		69+53.90	LT./RT.	3,008.0	
2700 N	65+30.93		66+01.77	RT.	106.0	
2700 N	8+80.00		43+00.00	LT./RT.	38,857.0	
2700 N	9+96.48		11+28.51	LT.	66.0	
2700 N	99+65.32		99+93.39	LT.	106.0	
2700 N	99+71.06		99+99.23	RT.	108.0	
600 W	2403+35.00		2407+18.62	LT.	523.0	
600 W	2500+42.83		2505+21.08	RT.	178.0	
600 W	2500+43.38		2503+36.18	LT.	597.0	
HILLSB	2700+42.68		2702+80.20	RT.	239.0	
HILLSB	2700+42.82		2702+07.56	LT.	380.0	
HILLSB	2800+43.12		2801+10.00	LT./RT.	294.0	
PRKLND	900+41.71		900+89.04	LT.	177.0	
PRKLND	900+44.29		900+89.57	RT.	177.0	
RAMP	200+28.43		201+47.98	LT.	369.0	
RAMP	300+27.06		301+52.78	RT.	205.0	
SR-89	1999+70.87		2005+90.87	RT.	349.0	
SR-89	2008+49.06		2012+83.61	RT.	200.0	
SR-89	2014+97.40		2017+11.41	RT.	690.0	
SR-89	2016+33.44		2017+45.95	LT.	363.0	
SR-89	2017+54.47		2021+06.61	RT.	338.0	
SR-89	2017+97.06		2024+21.00	LT.	760.0	
WSATCH	800+19.01		800+85.44	LT.	184.0	
WSATCH	800+19.34		801+79.93	RT.	105.0	
					61,415.0	

02222005*

Obliterate Road

1,400 sq yd

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	35+19.55		37+64.23	RT.	1,312.0	
WSATCH	800+48.63		800+72.03	RT.	85.0	
					1,397.0	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02316002*	Roadway Excavation (Plan Quantity)					130,000	cu yd
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2100+00.00		2108+40.01		674.0		
1000 W	2200+81.19		2202+52.36		233.0		
2700 N	154+67.57		161+00.00		2,586.0		
2700 N	161+00.00		163+58.79		2,629.0		
2700 N	21+34.43		26+50.00		4,418.0		
2700 N	26+50.00		43+00.00		10,204.0		
2700 N	43+00.00		48+50.00		4,502.0		
2700 N	48+50.00		51+00.00		2,056.0		
2700 N	51+00.00		60+52.45		5,095.0		
2700 N	60+52.45		64+96.65		2,523.0		
2700 N	64+96.65		69+52.70		2,020.0		
2700 N	69+52.70		154+67.57		52,774.0		
2700 N	8+80.00		9+60.00		885.0		
2700 N	9+60.00		21+34.43		9,777.0		
600 W	2403+35.00		2406+68.80		857.0		
600 W	2500+89.72		2505+21.08		1,549.0		
HILLSB	2700+83.08		2702+80.20		537.0		
HILLSB	2800+84.13		2801+10.00		99.0		
POND					19,233.0	BARKER POND	
SR-89	1999+70.87		2005+90.87		705.0		
SR-89	2008+49.06		2012+83.50		759.0		
SR-89	2014+97.61		2024+11.11		1,955.0		
					126,070.0		

02318001P	Small Ditch Excavation					1,290	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	158+00.00	69.00	161+60.00	73.60RT.	359.49	TYPE 2	
2700 N	53+00.00	69.42	61+00.00	67.80RT.	803.33	TYPE 1	
SR-89	2018+50.98	59.68	2019+77.13	58.85RT.	126.23	TYPE 2	
					1,289.05		

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02318002*	Irrigation Ditch					320	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	133+60.55	127.55	133+66.79	64.85RT.	63.03		
2700 N	147+70.00	81.00	147+72.00	73.00RT.	8.25		
2700 N	148+09.00	61.00	148+11.00	69.00LT.	8.24		
2700 N	158+56.84	122.97	158+57.98	72.98RT.	50.0		
2700 N	83+60.00	80.50	83+65.00	184.50RT.	100.3		
2700 N	85+80.00	75.50	86+19.00	94.00LT.	60.86		
2700 N	87+92.00	73.00	88+05.59	99.66LT.	27.0		
					317.68		
023720010	Wire Enclosed Riprap					20	cu yd
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	21+15.00		21+58.80	LT.	12.0		
					12.0		
023730010	Loose Riprap					40	cu yd
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	21+15.00		21+58.80	LT.	39.0		
					39.0		
02610001*	22 Inch x 36 Inch Smooth Lined Arch Pipe Culvert, Class C					80	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	69+25.55	72.57	69+81.90	89.11RT.	59.0		
2700 N	70+10.00	63.00	70+16.00	44.00RT.	20.0		
					79.0		

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02610002*	26 Inch x 43 Inch Smooth Lined Arch Pipe Culvert, Class C					105	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	21+43.38	56.34	22+43.25	56.56RT.	101.0	IRRIGATION PIPE	
					101.0		
02610004*	Transition Pipe					1	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	13+29.74	51.65	13+37.74	51.59LT.	1.0	IRRIGATION PIPE (L=8')	
					1.0		
02610005*	30 Inch Overflow Pipe					1	Lump
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	79+39.09	100.33		LT.	1.0		
					1.0		

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02610009*	15 Inch Smooth Lined Pipe Culvert, Class C				1,220	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	100+60.00	44.00	100+60.22	52.83LT.	8.0	15" PLUG
2700 N	100+76.82	52.00	100+77.00	44.00RT.	8.0	15" PLUG
2700 N	102+60.00	62.00	102+60.00	62.00LT/RT	124.0	IRRIGATION ACCESS PIPE
2700 N	102+70.00	44.00	102+70.00	52.00RT.	8.0	15" PLUG
2700 N	102+70.00	44.00	102+70.00	52.00LT.	8.0	15" PLUG
2700 N	105+20.00	44.00	105+20.00	52.00LT.	8.0	15" PLUG
2700 N	105+20.00	44.00	105+20.00	52.00RT.	8.0	15" PLUG
2700 N	107+70.00	44.00	107+70.00	52.00LT.	8.0	15" PLUG
2700 N	107+70.00	44.00	107+70.00	52.00RT.	8.0	15" PLUG
2700 N	110+70.00	44.00	110+70.00	52.00LT.	8.0	15" PLUG
2700 N	110+70.00	44.00	110+70.00	52.00RT.	8.0	15" PLUG
2700 N	113+20.00	44.00	113+20.00	52.00LT.	8.0	15" PLUG
2700 N	113+20.00	44.00	113+20.00	52.00RT.	8.0	15" PLUG
2700 N	115+70.00	44.00	115+70.00	52.00LT.	8.0	15" PLUG
2700 N	115+70.00	44.00	115+70.00	52.00RT.	8.0	15" PLUG
2700 N	118+27.00	44.00	118+27.00	52.00RT.	8.0	15" PLUG
2700 N	119+50.00	44.00	119+50.00	52.00RT.	8.0	15" PLUG
2700 N	121+46.00	44.00	121+46.00	52.00RT.	8.0	15" PLUG
2700 N	123+40.00	44.00	123+40.00	52.00RT.	8.0	15" PLUG
2700 N	125+32.00	44.00	125+32.00	60.00LT.	16.0	15" PLUG
2700 N	125+32.00	44.00	125+32.00	52.00RT.	8.0	15" PLUG
2700 N	127+88.00	44.00	127+88.00	60.00LT.	16.0	15" PLUG
2700 N	127+88.00	44.00	127+88.00	52.03RT.	8.0	15" PLUG
2700 N	130+72.00	44.00	133+77.00	60.00LT.	16.0	15" PLUG
2700 N	130+72.00	44.00	133+77.00	52.00RT.	8.0	15" PLUG
2700 N	133+77.00	44.00	133+77.00	52.00LT.	8.0	15" PLUG
2700 N	133+77.00	44.00	133+77.00	52.00RT.	8.0	15" PLUG
2700 N	136+78.00	44.00	136+78.00	52.00LT.	8.0	15" PLUG
2700 N	136+78.00	44.00	136+78.00	52.00RT.	8.0	15" PLUG
2700 N	138+50.95	64.37	138+67.12	63.61RT/LT	129.0	IRRIGATION ACCESS PIPE
2700 N	138+90.00	44.00	138+90.00	52.00RT.	8.0	15" PLUG
2700 N	138+90.00	44.00	138+90.00	52.00LT.	8.0	15" PLUG
2700 N	141+00.00	44.00	141+00.00	52.00RT.	8.0	15" PLUG

Detailed Report**SP-0134(2)11****Version: 1****2700 NORTH; I-15 TO WASHINGTON**

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	152+89.63	66.65	152+97.63	66.65LT.	8.0	15" PLUG
2700 N	153+30.00	44.00	153+30.00	52.00RT.	8.0	15" PLUG
2700 N	153+36.33	66.65	153+44.33	66.65LT.	8.0	15" PLUG
2700 N	155+08.00	44.00	155+08.00	52.00RT.	8.0	15" PLUG
2700 N	158+37.00	44.00	158+37.07	52.00RT.	8.0	15" PLUG
2700 N	158+51.50	66.46	158+55.50	66.47RT.	4.0	
2700 N	158+58.00	68.98	158+58.00	72.98RT.	4.0	
2700 N	158+60.50	66.49	158+64.50	66.50RT.	4.0	
2700 N	159+43.50	66.92	159+47.50	66.93RT.	4.0	
2700 N	159+50.00	69.44	159+50.00	73.44RT.	4.0	
2700 N	159+52.50	66.95	159+56.50	66.96RT.	4.0	
2700 N	159+93.50	67.24	159+97.50	67.25RT.	4.0	
2700 N	160+00.00	69.76	160+00.00	73.76RT.	4.0	
2700 N	160+02.50	67.27	160+06.50	67.28RT.	4.0	
2700 N	160+53.50	69.15	160+57.50	69.16RT.	4.0	
2700 N	160+60.00	71.67	160+60.00	75.67RT.	4.0	
2700 N	160+62.50	69.18	160+66.53	69.19RT.	4.0	
2700 N	161+50.00	44.00	161+50.02	52.00RT.	8.0	15" PLUG
2700 N	161+53.44	73.65	161+57.48	73.62RT.	4.0	
2700 N	161+60.00	76.10	161+60.00	80.10RT.	4.0	
2700 N	161+62.52	73.58	162+42.36	58.96RT.	81.0	
2700 N	162+44.88	58.91	162+45.55	74.83RT.	16.0	
2700 N	24+86.00	50.00	24+86.00	58.00RT.	8.0	15" PLUG
2700 N	27+23.00	50.00	27+23.00	58.00RT.	8.0	15" PLUG
2700 N	30+34.00	50.00	30+34.00	58.00RT.	8.0	15" PLUG
2700 N	49+04.00	50.00	49+04.00	58.00RT.	8.0	15" PLUG
2700 N	53+05.00	44.00	53+05.00	52.00LT.	8.0	15" PLUG
2700 N	53+05.00	50.00	53+05.00	58.00RT.	8.0	15" PLUG
2700 N	55+50.00	44.00	55+50.00	52.00LT.	8.0	15" PLUG
2700 N	55+50.00	50.00	55+50.00	58.00RT.	8.0	15" PLUG
2700 N	56+08.38	69.65	56+44.38	69.38RT.	36.0	
2700 N	57+84.00	44.00	57+84.00	52.00LT.	8.0	15" PLUG
2700 N	57+84.00	50.00	57+84.00	58.00RT.	8.0	15" PLUG
2700 N	64+37.90	75.38	64+61.88	85.48RT.	26.0	
2700 N	69+66.49	66.87	69+71.63	73.00LT.	8.0	15" PLUG
2700 N	70+16.00	44.00	70+19.92	50.97LT.	8.0	15" PLUG

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	72+22.00	44.00	72+22.00	52.00LT.	8.0	15" PLUG
2700 N	72+22.00	44.00	72+22.00	52.00RT.	8.0	15" PLUG
2700 N	74+65.00	44.00	74+65.00	52.00RT.	8.0	15" PLUG
2700 N	74+65.00	44.00	74+65.00	52.00LT.	8.0	15" PLUG
2700 N	77+00.00	44.00	77+00.00	52.00RT.	8.0	15" PLUG
2700 N	77+00.00	44.00	77+00.00	52.00LT.	8.0	15" PLUG
2700 N	81+60.00	44.00	81+60.00	52.00RT.	8.0	15" PLUG
2700 N	83+90.00	44.00	83+90.00	52.00RT.	8.0	15" PLUG
2700 N	83+90.00	44.00	83+90.00	52.00LT.	8.0	15" PLUG
2700 N	86+20.00	44.00	86+20.00	52.00RT.	8.0	15" PLUG
2700 N	86+20.00	44.00	86+20.00	52.00LT.	8.0	15" PLUG
2700 N	89+20.00	44.00	89+20.00	52.00RT.	8.0	15" PLUG
2700 N	89+20.00	44.00	89+20.00	52.00LT.	8.0	15" PLUG
2700 N	91+80.00	44.00	91+80.00	52.00RT.	8.0	15" PLUG
2700 N	91+80.00	44.00	91+80.00	52.00LT.	8.0	15" PLUG
2700 N	94+35.00	44.00	94+35.00	52.00RT.	8.0	15" PLUG
2700 N	94+35.00	44.00	94+35.00	52.00LT.	8.0	15" PLUG
2700 N	96+90.00	44.00	96+90.00	52.00RT.	8.0	15" PLUG
2700 N	96+90.00	44.00	96+90.00	52.00LT.	8.0	15" PLUG
2700 N	99+15.00	67.00	99+32.26	61.85LT/RT	130.0	15" PLUG LT/RT - MARK PIPE ENDS
2700 N	99+26.49	54.28	99+31.05	47.71LT.	8.0	15" PLUG
2700 N	99+41.00	44.00	99+41.86	51.95RT.	8.0	15" PLUG
600 W	2406+41.00	27.00	2406+41.00	35.00LT.	8.0	15" PLUG
600 W	2406+41.00	27.00	2406+41.00	35.00RT.	8.0	15" PLUG
600 W	2501+50.00	27.00	2501+50.00	35.00RT.	8.0	15" PLUG
600 W	2501+50.00	27.00	2501+50.00	35.00LT.	8.0	15" PLUG

1,214.0

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02610018*	18 Inch Smooth Lined Pipe Culvert, Class C				7,610	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
100 W	2108+10.00	17.00	2108+48.36	17.63LT.	38.0	
1000 W	2108+10.00	17.00	2108+10.00	29.00LT/RT	46.0	
2700 N	100+60.00	44.00	100+77.00	44.00LT/RT	90.0	
2700 N	102+70.00	44.00	102+70.00	44.00LT/RT	88.0	
2700 N	105+20.00	44.00	105+20.00	44.00LT/RT	88.0	
2700 N	107+70.00	44.00	107+70.00	44.00LT/RT	88.0	
2700 N	108+45.00	61.00	108+65.00	68.00LT/RT	131.0	IRRIGATION PIPE
2700 N	11+66.00	44.00	11+66.41	25.89LT.	18.0	
2700 N	11+66.00	44.00	12+08.00	44.00LT.	42.0	
2700 N	11+72.00	44.00	11+73.07	57.39RT.	13.0	
2700 N	11+73.07	57.39	12+57.78	94.00RT.	92.0	
2700 N	110+70.00	44.00	110+70.00	44.00LT/RT	88.0	
2700 N	113+20.00	44.00	113+20.00	44.00LT/RT	88.0	
2700 N	113+42.00	66.00	113+58.00	75.00LT/RT	142.0	IRRIGATION PIPE
2700 N	115+70.00	44.00	115+70.00	44.00LT/RT	88.0	
2700 N	116+16.80	60.00	116+16.80	66.00LT/RT	126.0	IRRIGATION PIPE
2700 N	118+27.00	44.00	118+27.00	44.00LT/RT	88.0	
2700 N	118+27.00	44.00	118+64.61	83.10RT.	54.0	
2700 N	118+27.00	44.00	118+68.00	80.30LT.	55.0	
2700 N	118+64.61	83.10	119+06.16	80.14RT.	42.0	
2700 N	118+68.01	80.28	119+09.99	80.26LT.	42.0	
2700 N	119+50.00	44.00	119+50.00	44.00LT/RT	88.0	
2700 N	12+08.00	44.00	12+70.00	47.00LT.	62.0	
2700 N	12+57.78	94.00	12+80.21	104.77RT.	25.0	
2700 N	121+46.00	44.00	121+46.00	44.00LT/RT	88.0	
2700 N	123+40.00	44.00	123+40.00	44.00LT/RT	88.0	
2700 N	125+32.00	44.00	125+32.00	44.00LT/RT	88.0	
2700 N	127+88.00	44.00	127+88.00	44.00LT/RT	88.0	
2700 N	13+41.75	89.07	13+80.42	43.94RT.	59.0	
2700 N	130+72.00	44.00	130+72.00	44.00LT/RT	88.0	
2700 N	133+67.00	65.00	133+70.00	77.00RT/LT	142.0	IRRIGATION PIPE
2700 N	133+77.00	44.00	133+77.00	44.00LT/RT	88.0	
2700 N	135+55.63	44.00	135+60.65	50.28LT.	8.0	18" PLUG

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	135+55.63	44.00	135+61.00	44.00LT/RT	88.0	
2700 N	135+61.00	44.00	135+66.50	49.75RT.	8.0	18" PLUG
2700 N	136+78.00	44.00	136+78.00	44.00LT/RT	88.0	
2700 N	138+72.00	63.00	138+56.00	65.00LT/RT	129.0	IRRIGATION PIPE
2700 N	138+90.00	44.00	138+90.00	44.00LT/RT	88.0	
2700 N	141+00.00	44.00	141+00.00	44.00LT/RT	88.0	
2700 N	141+00.00	44.00	141+00.00	60.00LT.	16.0	
2700 N	143+03.00	44.00	143+03.00	44.00LT/RT	88.0	
2700 N	143+03.00	44.00	143+03.00	60.00LT.	16.0	
2700 N	145+60.00	44.00	145+60.00	44.00LT/RT	88.0	
2700 N	145+60.00	44.00	145+60.00	60.00LT.	16.0	
2700 N	145+60.00	44.00	145+60.00	64.00RT.	20.0	
2700 N	148+31.00	44.00	148+31.00	60.00LT.	16.0	
2700 N	148+31.00	44.00	148+31.00	44.00LT/RT	88.0	
2700 N	151+29.00	44.00	151+50.00	47.75RT.	21.0	
2700 N	151+29.00	44.00	151+65.31	31.64LT.	39.0	
2700 N	153+29.96	30.60	153+30.00	44.00LT/RT	75.0	
2700 N	155+08.36	26.27	155+08.00	44.00LT/RT	70.0	
2700 N	158+36.61	16.44	158+37.00	44.00LT/RT	60.0	
2700 N	16+06.00	44.00	16+33.90	44.88LT/RT	93.0	
2700 N	161+49.89	8.30	161+50.00	44.00LT/RT	52.0	
2700 N	18+34.00	44.00	18+37.28	46.85LT/RT	91.0	
2700 N	18+34.00	44.00	19+45.00	44.00LT.	110.0	
2700 N	18+37.28	46.85	18+62.89	81.55RT.	43.0	
2700 N	21+00.33	48.86	21+28.00	44.00LT.	27.0	
2700 N	21+28.00	44.00	21+48.77	44.00LT.	21.0	
2700 N	22+20.00	44.00	22+20.00	50.00RT.	6.0	
2700 N	24+86.00	44.00	24+86.00	50.00RT.	6.0	
2700 N	25+57.00	38.11	25+57.00	44.00LT.	6.0	
2700 N	25+57.00	44.00	25+84.28	59.26LT.	31.0	
2700 N	25+57.00	52.00	25+89.75	75.00RT.	32.0	
2700 N	25+84.28	59.26	26+42.32	78.56LT.	62.0	
2700 N	25+89.75	75.00	26+43.90	77.25RT.	54.0	
2700 N	2500+90.00	27.00	2501+50.00	27.00LT.	60.0	
2700 N	2501+50.00	27.00	2501+50.00	27.00LT/RT	54.0	
2700 N	2501+75.74	37.48	2501+75.75	45.64RT/LT	83.0	

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	27+23.00	33.00	27+23.00	44.00LT.	11.0	
2700 N	27+23.00	44.00	27+23.00	50.00RT.	6.0	
2700 N	30+34.00	44.00	30+34.00	50.00RT.	6.0	
2700 N	32+15.00	44.00	32+15.00	50.00RT.	6.0	
2700 N	34+11.00	44.00	34+11.00	50.00RT.	6.0	
2700 N	34+11.00	52.00	34+60.39	80.65RT.	57.0	
2700 N	34+50.00	30.00	34+50.22	83.50LT.	54.0	
2700 N	34+50.22	83.50	35+04.22	83.50LT.	54.0	
2700 N	34+60.39	80.65	35+18.76	77.55RT.	58.0	
2700 N	35+48.00	31.00	35+48.00	44.00LT.	13.0	
2700 N	35+63.00	44.00	35+63.00	50.00RT.	6.0	
2700 N	38+76.00	44.00	38+76.00	50.00RT.	6.0	
2700 N	41+67.00	44.00	41+67.00	50.00RT.	6.0	
2700 N	41+67.00	44.00	41+67.33	37.27LT.	7.0	
2700 N	41+67.00	44.00	42+10.66	76.02LT.	54.0	
2700 N	42+10.66	76.02	42+49.89	77.89LT.	40.0	
2700 N	43+50.00	44.00	46+50.00	50.00RT.	6.0	
2700 N	45+57.54	44.00	45+57.54	50.00RT.	6.0	
2700 N	45+57.54	52.00	45+91.15	80.00RT.	44.0	
2700 N	45+90.50	76.56	46+30.20	77.06LT.	40.0	
2700 N	45+91.15	80.00	46+38.00	80.00RT.	47.0	
2700 N	46+30.20	77.06	46+73.12	45.04LT.	53.0	
2700 N	46+72.00	44.00	46+72.00	50.00RT.	6.0	
2700 N	49+04.00	0.50	49+04.00	44.00LT/RT	45.0	
2700 N	49+04.00	44.00	49+04.00	50.00RT.	6.0	
2700 N	49+81.00	44.00	50+10.00	0.50LT/RT	53.0	
2700 N	49+81.00	44.00	50+50.00	44.00LT.	69.0	
2700 N	50+86.00	44.00	50+86.00	50.00RT.	6.0	
2700 N	53+05.00	34.00	53+05.00	44.00LT.	10.0	
2700 N	53+05.00	44.00	53+05.00	50.00RT.	6.0	
2700 N	55+50.00	34.00	55+50.00	44.00LT.	10.0	
2700 N	55+50.00	44.00	55+50.00	50.00RT.	6.0	
2700 N	57+84.00	34.00	57+84.00	44.00LT.	10.0	
2700 N	57+84.00	44.00	57+84.00	50.00RT.	6.0	
2700 N	60+00.00	44.00	60+00.00	50.00RT.	6.0	
2700 N	61+20.42	92.42	61+38.00	60.00LT.	37.0	

Detailed Report**SP-0134(2)11****Version: 1****2700 NORTH; I-15 TO WASHINGTON**

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	61+31.00	35.00	61+38.00	60.00LT.	27.0	
2700 N	62+30.00	44.00	62+30.00	50.00RT.	6.0	
2700 N	62+30.00	52.00	62+59.01	61.59RT.	31.0	
2700 N	62+62.29	119.32	63+23.00	57.00LT.	87.0	
2700 N	63+23.00	44.00	63+23.00	57.00LT.	13.0	
2700 N	63+70.00	44.00	63+88.61	72.80RT.	34.0	
2700 N	63+88.61	72.80	64+25.15	113.09RT.	54.0	
2700 N	64+24.00	44.00	64+24.00	59.00LT.	15.0	
2700 N	64+25.15	113.09	64+37.90	75.38RT.	40.0	
2700 N	66+42.00	44.00	66+42.00	57.00LT.	13.0	
2700 N	68+87.00	44.00	68+87.00	56.00LT.	12.0	
2700 N	68+89.00	44.00	69+25.55	72.57RT.	46.0	
2700 N	69+66.49	66.87	70+16.00	44.00LT.	55.0	
2700 N	70+16.00	44.00	70+16.00	44.00LT/RT	88.0	
2700 N	72+22.00	44.00	72+22.00	44.00LT/RT	88.0	
2700 N	74+65.00	44.00	74+65.00	44.00LT/RT	88.0	
2700 N	77+00.00	44.00	77+00.00	44.00LT/RT	88.0	
2700 N	78+92.00	47.75	79+02.04	101.83LT.	55.0	DRAIN PIPE
2700 N	78+92.00	47.75	79+15.00	95.93LT.	53.0	IRRIGATION PIPE
2700 N	81+60.00	44.00	81+60.00	44.00LT/RT	88.0	
2700 N	83+90.00	44.00	83+90.00	44.00LT/RT	88.0	
2700 N	86+20.00	44.00	86+20.00	44.00LT/RT	88.0	
2700 N	89+20.00	44.00	89+20.00	44.00LT/RT	88.0	
2700 N	9+30.00	63.08	9+30.41	26.02LT.	37.0	
2700 N	91+80.00	44.00	91+80.00	44.00LT/RT	88.0	
2700 N	93+00.00	65.00	93+00.00	69.00LT/RT	134.0	IRRIGATION PIPE
2700 N	94+35.00	44.00	94+35.00	44.00LT/RT	88.0	
2700 N	96+90.00	44.00	96+90.00	44.00LT/RT	88.0	
2700 N	99+31.05	47.71	99+41.00	44.00LT/RT	92.0	
2700 N	99+31.05	47.71	99+50.45	85.62LT.	43.0	
2700 N	99+41.00	44.00	99+80.23	76.46RT.	51.0	
600 W	2403+35.00	25.81	2404+50.00	25.81LT.	115.0	
600 W	2404+50.00	27.00	2404+50.00	27.00LT/RT	54.0	
600 W	2404+50.00	25.81	2406+41.00	25.81LT.	191.0	
600 W	2406+41.00	27.00	2406+41.00	27.00RT/LT	54.0	
600 W	2406+41.00	25.81	2406+85.00	25.81LT.	44.0	

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
SR-89	2018+52.57	43.94	2018+52.57	58.94RT.	15.0	CONNECT EXISTING PIPE
SR-89	2019+77.13	43.85	2019+77.13	58.85RT.	15.0	
					<hr/> 7,608.0	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02610019*	24 Inch Smooth Lined Pipe Culvert, Class C				2,870	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	147+72.00	73.00	148+09.00	61.00RT/LT	139.0	IRRIGATION PIPE
2700 N	148+30.98	104.48	148+31.00	44.00RT.	60.0	
2700 N	152+97.63	66.65	153+31.18	66.65LT.	34.0	
2700 N	153+29.96	30.60	153+30.00	44.00LT.	13.0	
2700 N	153+30.00	44.00	153+31.18	66.65LT.	23.0	
2700 N	153+31.18	66.65	153+36.33	66.65LT.	5.0	
2700 N	21+56.37	59.19	21+86.00	59.00LT.	29.0	
2700 N	50+86.00	52.00	51+00.00	75.75RT.	28.0	
2700 N	76+00.00	62.05	79+25.50	62.99RT.	325.0	IRRIGATION PIPE
2700 N	79+28.00	73.50	79+28.02	65.50RT.	8.0	IRRIGATION PIPE
2700 N	79+30.50	63.02	81+45.48	64.01RT.	214.0	IRRIGATION PIPE
2700 N	79+39.00	44.00	79+39.00	99.00LT.	55.0	
2700 N	79+39.00	44.00	79+39.00	44.00LT/RT	88.0	
2700 N	8+37.09	34.30	9+10.46	26.37LT.	75.0	
2700 N	81+48.00	74.50	81+48.05	66.50RT.	8.0	IRRIGATION PIPE
2700 N	81+50.52	64.01	83+57.48	62.06RT.	205.0	IRRIGATION PIPE
2700 N	83+05.00	48.00	83+05.00	72.00LT.	24.0	IRRIGATION PIPE
2700 N	83+05.00	48.00	85+77.56	61.27LT.	275.0	IRRIGATION PIPE
2700 N	83+60.11	64.50	83+60.11	80.50RT.	16.0	IRRIGATION PIPE
2700 N	83+62.52	62.04	86+31.48	62.04RT.	267.0	IRRIGATION PIPE
2700 N	85+79.82	64.49	85+80.00	72.00LT.	8.0	IRRIGATION PIPE
2700 N	85+82.53	61.41	87+89.53	61.73LT.	209.0	IRRIGATION PIPE
2700 N	86+34.00	73.00	86+34.20	64.49RT.	8.0	
2700 N	86+36.53	62.01	87+89.44	61.09RT.	152.0	IRRIGATION PIPE
2700 N	87+91.76	59.48	87+92.00	62.00LT/RT	121.0	IRRIGATION PIPE
2700 N	87+92.00	73.00	87+92.11	64.50RT.	8.0	IRRIGATION PIPE
2700 N	9+10.46	26.37	9+32.00	64.71LT/RT	94.0	
2700 N	9+32.00	64.71	11+72.00	44.00RT.	241.0	
SR-89	2005+24.03	116.54	2005+64.91	54.24RT.	75.0	
SR-89	2005+64.91	54.24	2006+21.95	61.15RT.	57.0	END STATION 2100+27.13, 26.47 RT. (1000 W)
					2,864.0	

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02610020*	30 Inch Smooth Lined Pipe Culvert, Class C				3,200	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	130+72.00	42.56	133+77.00	42.56RT.	308.0	
2700 N	133+77.00	42.56	135+60.91	42.56RT.	186.0	
2700 N	135+60.91	42.56	136+78.00	42.56RT.	118.0	
2700 N	136+78.00	42.56	138+90.00	42.56RT.	211.0	
2700 N	138+90.00	42.56	141+00.00	42.56RT.	208.0	
2700 N	141+00.00	42.56	143+03.00	42.56RT.	201.0	
2700 N	143+03.00	42.56	145+60.00	42.56RT.	257.0	
2700 N	145+60.00	42.56	148+31.00	42.56RT.	272.0	
2700 N	50+47.00	68.00	50+50.00	44.00LT.	24.0	
2700 N	70+10.00	63.00	73+21.00	63.00RT.	311.0	IRRIGATION PIPE
2700 N	73+21.00	63.00	76+00.00	63.00RT.	279.0	IRRIGATION PIPE
2700 N	76+00.00	47.75	76+00.00	63.00LT/RT	111.0	IRRIGATION PIPE
2700 N	76+00.00	47.75	78+92.00	47.75LT.	292.0	IRRIGATION PIPE
2700 N	78+92.00	47.75	81+05.00	47.75LT.	213.0	IRRIGATION PIPE
2700 N	81+05.00	47.75	83+05.00	48.00LT.	201.0	IRRIGATION PIPE
2700 N	87+91.76	64.49	87+92.00	73.00LT.	8.0	IRRIGATION PIPE
					3,200.0	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02610021*	36 Inch Smooth Lined Pipe Culvert, Class C				2,970	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
	107+70.00	42.56	110+70.00	42.56RT.	301.0	
	110+70.00	42.56	113+20.00	42.56RT.	251.0	
	113+20.00	42.56	115+70.00	42.56RT.	251.0	
	115+70.00	42.56	118+27.00	42.56RT.	258.0	
	118+27.00	42.56	119+16.10	42.56RT.	90.0	
	119+16.10	42.56	119+50.00	42.56RT.	34.0	
	119+50.00	42.56	121+46.00	42.56RT.	197.0	
	121+46.00	42.56	123+40.00	42.56RT.	194.0	
	123+40.00	42.56	125+32.00	42.56RT.	192.0	
	125+32.00	42.56	127+88.00	42.56RT.	256.0	
	127+88.00	42.56	130+72.00	42.56RT.	284.0	
	147+82.13	74.74	147+92.01	42.64RT.	34.0	
	147+82.13	74.74	148+23.23	93.14RT.	45.0	TIE INTO EXISTING STRUCTURE
	21+00.33	48.86	21+43.38	56.34LT/RT	114.0	IRRIGATION PIPE
	2100+30.13	104.87	2100+30.77	137.44RT.	33.0	
	2105+26.12	19.37	2105+27.59	31.37RT/LT	51.0	
	2105+26.12	19.37	2106+57.00	38.00RT.	132.0	IRRIGATION PIPE
1000 W	2106+57.00	38.00	2108+32.46	38.91RT.	176.0	IRRIGATION PIPE
2700 N	27+47.92	33.33	27+48.78	69.32LT.	36.0	
2700 N	69+81.90	89.11	70+10.00	63.00RT.	38.0	IRRIGATION PIPE
					2,967.0	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02610022*	42 Inch Smooth Lined Pipe Culvert, Class C					3,020	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2100+27.13	26.47	2100+30.13	104.87RT.	78.0		
1000 W	2100+27.13	26.47	2101+15.25	26.06RT.	88.0		
1000 W	2101+15.25	26.06	2103+20.00	22.70RT.	205.0		
1000 W	2103+20.00	22.70	2105+26.12	19.37RT.	206.0		
2700 N	100+76.67	42.31	102+70.00	42.31RT.	193.0		
2700 N	102+70.00	42.31	105+20.00	42.31RT.	250.0		
2700 N	105+20.00	42.31	107+70.00	42.31RT.	250.0		
2700 N	63+23.00	57.00	64+24.00	59.00LT.	101.0	CONNECT ROOF DRAIN	
2700 N	64+24.00	59.00	66+42.00	57.00LT.	218.0	CONNECT ROOF DRAIN	
2700 N	66+42.00	57.00	68+87.00	56.00LT.	245.0	CONNECT STORM DRAIN	
2700 N	89+20.00	42.31	91+80.00	42.31RT.	259.0		
2700 N	91+80.00	42.31	94+35.00	42.31RT.	254.0		
2700 N	94+35.00	42.31	96+90.00	42.31RT.	255.0		
2700 N	96+90.00	42.31	99+40.82	42.31RT.	251.0		
2700 N	99+40.82	42.31	100+76.67	42.31RT.	136.0		
SR-89	2012+46.78	73.13	2012+49.07	43.22RT.	30.0		
					3,019.0		

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number		Description				Use Qty	Unit
02610023*		48 Inch Smooth Lined Pipe Culvert, Class C				7,370	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	21+83.84	52.00	22+20.00	52.00RT.	36.0		
2700 N	22+20.00	52.00	24+86.00	52.00RT.	266.0		
2700 N	24+86.00	52.00	25+57.00	52.00RT.	80.0		
2700 N	25+57.00	52.00	27+23.00	52.00RT.	155.0		
2700 N	27+23.00	52.00	30+34.00	52.00RT.	310.0		
2700 N	30+34.00	52.00	32+15.00	52.00RT.	181.0		
2700 N	32+15.00	52.00	34+11.00	52.00RT.	196.0		
2700 N	34+11.00	52.00	35+63.00	52.00RT.	152.0		
2700 N	35+63.00	52.00	38+76.00	52.00RT.	312.0		
2700 N	38+76.00	52.00	41+67.00	52.00RT.	291.0		
2700 N	41+67.00	52.00	43+50.00	52.00RT.	183.0		
2700 N	43+50.00	52.00	45+57.54	52.00RT.	207.0		
2700 N	45+57.54	52.00	46+72.00	52.00RT.	114.0		
2700 N	46+72.00	52.00	49+04.00	52.00RT.	232.0		
2700 N	49+04.00	52.00	49+44.44	52.00RT.	40.0		
2700 N	50+40.44	52.00	50+86.00	52.00RT.	46.0		
2700 N	50+52.48	36.25	53+05.00	34.00LT.	253.0		
2700 N	50+86.00	52.00	53+05.00	52.00RT.	219.0		
2700 N	53+05.00	34.00	55+50.00	34.00LT.	245.0		
2700 N	53+05.00	52.00	55+50.00	52.00RT.	245.0		
2700 N	55+50.00	34.00	57+84.00	34.00LT.	234.0		
2700 N	55+50.00	52.00	57+84.00	52.00RT.	234.0		
2700 N	57+84.00	52.00	60+00.00	52.00RT.	216.0		
2700 N	60+00.00	52.00	62+30.00	52.00RT.	230.0		
2700 N	62+30.00	52.00	63+70.00	42.06RT.	140.0		
2700 N	63+70.00	42.06	66+42.00	42.06RT.	272.0		
2700 N	66+42.00	42.06	68+89.00	42.06RT.	247.0		
2700 N	68+89.00	42.06	70+16.00	42.06RT.	127.0		
2700 N	70+16.00	42.06	72+22.00	42.06RT.	206.0		
2700 N	72+22.00	42.06	74+65.00	42.06RT.	243.0		
2700 N	74+65.00	42.06	77+00.00	42.06RT.	235.0		
2700 N	77+00.00	42.06	79+39.00	42.06RT.	239.0		
2700 N	79+39.00	42.06	81+60.00	42.06RT.	221.0		

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	81+60.00	42.06	83+90.00	42.06RT.	229.0	
2700 N	83+90.00	42.06	86+20.00	42.06RT.	229.0	
2700 N	86+20.00	42.06	89+20.00	42.06RT.	298.0	
					7,363.0	

026110050 Screw Gate and Frame 18 inch 3 Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	21+00.33	48.86		LT.	1.0	INSIDE CLEANOUT BOX
2700 N	79+02.04	101.83		LT.	1.0	
2700 N	79+15.00	95.93		LT.	1.0	IRRIGATION PIPE
					3.0	

02613001D Culvert End Sections 15 Inch 2 Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	56+08.38	69.65		RT.	1.0	
2700 N	56+44.38	69.38		RT.	1.0	
					2.0	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
026130030	Culvert End Sections 18 inch				13	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	108+45.00	61.00		LT.	1.0	
2700 N	108+65.00	68.00		RT.	1.0	
2700 N	113+42.00	66.00		LT	1.0	
2700 N	113+58.00	75.00		RT.	1.0	
2700 N	116+16.80	60.00		LT.	1.0	
2700 N	116+16.80	66.00		RT.	1.0	
2700 N	133+70.00	77.00		LT.	1.0	
2700 N	138+56.00	65.00		RT.	1.0	
2700 N	138+72.00	63.00		LT.	1.0	
2700 N	93+00.00	65.00		LT.	1.0	
2700 N	93+00.00	69.00		RT.	1.0	
600 W	2501+75.74	37.48		RT.	1.0	
600 W	2501+75.75	45.64		LT.	1.0	
					13.0	
026130040	Culvert End Sections 24 inch				9	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	147+72.00	73.00		RT.	1.0	
2700 N	148+09.00	61.00		LT.	1.0	
2700 N	51+00.00	75.75		RT.	1.0	
2700 N	79+28.00	73.50		RT.	1.0	
2700 N	81+48.00	74.50		RT.	1.0	
2700 N	83+05.00	72.00		LT.	1.0	
2700 N	85+80.00	72.00		LT.	1.0	
2700 N	86+34.00	73.00		RT.	1.0	
2700 N	87+92.00	73.00		RT.	1.0	
					9.0	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number		Description				Use Qty	Unit
026130050		Culvert End Sections 30 inch				2	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	50+47.00	68.00		LT.	1.0		
2700 N	87+92.00	73.00		LT.	1.0		
					2.0		
02621001*		Spring Development				1	Lump
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	133+57.86			LT/RT	1.0		
					1.0		

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02622002*	Underdrain, 12 inch				17,300	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	100+60.00	44.00	102+70.00	44.00LT.	210.0	
2700 N	100+77.00	44.00	102+70.00	44.00RT.	193.0	
2700 N	102+70.00	44.00	105+20.00	44.00LT.	250.0	
2700 N	102+70.00	44.00	105+20.00	44.00RT.	250.0	
2700 N	105+20.00	44.00	107+70.00	44.00RT.	250.0	
2700 N	105+20.00	44.00	107+70.00	44.00LT.	250.0	
2700 N	107+70.00	44.00	110+70.00	44.00LT.	299.0	
2700 N	107+70.00	44.00	110+70.00	44.00RT.	301.0	
2700 N	110+70.00	44.00	113+20.00	44.00RT.	251.0	
2700 N	110+70.00	44.00	113+20.00	44.00LT.	249.0	
2700 N	113+20.00	44.00	115+70.00	44.00LT.	249.0	
2700 N	113+20.00	44.00	115+70.00	44.00RT.	251.0	
2700 N	115+70.00	44.00	118+27.00	44.00LT.	256.0	
2700 N	115+70.00	44.00	118+27.00	44.00RT.	258.0	
2700 N	118+27.00	44.00	119+16.10	44.00RT.	90.0	
2700 N	118+27.00	44.00	119+50.00	44.00LT.	122.0	
2700 N	119+16.10	44.00	119+50.00	44.00RT.	34.0	
2700 N	119+50.00	44.00	121+46.00	44.00RT.	197.0	
2700 N	119+50.00	44.00	121+46.00	44.00LT.	195.0	
2700 N	121+46.00	44.00	123+40.00	44.00LT.	194.0	
2700 N	121+46.00	44.00	123+40.00	44.00RT.	194.0	
2700 N	123+40.00	44.00	125+32.00	44.00LT.	192.0	
2700 N	123+40.00	44.00	125+32.00	44.00RT.	192.0	
2700 N	125+32.00	44.00	127+88.00	44.00RT.	256.0	
2700 N	125+32.00	44.00	127+88.00	44.00LT.	256.0	
2700 N	127+88.00	44.00	130+72.00	44.00LT.	284.0	
2700 N	127+88.00	44.00	130+72.00	44.00RT.	284.0	
2700 N	130+72.00	44.00	133+56.39	44.00RT.	288.0	
2700 N	130+72.00	44.00	133+77.00	44.00LT.	301.0	
2700 N	133+57.60	39.00	133+58.17	46.50LT/RT	86.0	UNDERDRAIN FOR SPRING DRAINAGE
2700 N	133+77.00	44.00	135+55.63	44.00LT.	177.0	
2700 N	133+77.00	44.00	135+61.00	44.00RT.	186.0	
2700 N	135+55.63	44.00	136+78.00	44.00LT.	122.0	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	135+61.00	44.00	136+78.00	44.00RT.	118.0	
2700 N	136+78.00	44.00	138+90.00	44.00LT.	213.0	
2700 N	136+78.00	44.00	138+90.00	44.00RT.	211.0	
2700 N	138+90.00	44.00	141+00.00	44.00LT.	212.0	
2700 N	138+90.00	44.00	141+00.00	44.00RT.	208.0	
2700 N	141+00.00	44.00	143+03.00	44.00LT.	205.0	
2700 N	141+00.00	44.00	143+03.00	44.00RT.	201.0	
2700 N	143+03.00	44.00	145+60.00	44.00RT.	257.0	
2700 N	143+03.00	44.00	145+60.00	44.00LT.	257.0	
2700 N	145+60.00	44.00	148+31.00	44.00RT.	272.0	
2700 N	145+60.00	44.00	148+31.00	44.00LT.	270.0	
2700 N	148+31.00	44.00	151+29.00	44.00LT.	299.0	
2700 N	148+31.00	44.00	151+29.00	44.00RT.	297.0	
2700 N	151+29.00	44.00	153+30.00	44.00RT.	201.0	
2700 N	151+29.00	44.00	153+30.00	44.00LT.	201.0	
2700 N	153+30.00	44.00	154+30.96	44.00LT.	101.0	
2700 N	153+30.00	44.00	155+08.00	44.00RT.	178.0	
2700 N	155+08.00	44.00	158+37.00	44.00RT.	329.0	
2700 N	158+37.00	44.00	161+50.00	44.00RT.	313.0	
2700 N	161+50.00	44.00	162+63.49	44.00RT.	113.0	
2700 N	69+97.12	44.00	70+16.00	44.00LT.	19.0	
2700 N	70+16.00	44.00	72+22.00	44.00RT.	206.0	
2700 N	70+16.00	44.00	72+22.00	44.00LT.	206.0	
2700 N	72+22.00	44.00	74+65.00	44.00RT.	243.0	
2700 N	72+22.00	44.00	74+65.00	44.00LT.	243.0	
2700 N	74+65.00	44.00	75+98.00	44.00RT.	133.0	
2700 N	74+65.00	44.00	75+98.00	44.00LT.	133.0	
2700 N	77+00.00	44.00	79+39.00	44.00RT.	239.0	
2700 N	77+00.00	44.00	79+39.00	44.00LT.	239.0	
2700 N	79+39.00	44.00	81+60.00	44.00RT.	221.0	
2700 N	79+39.00	44.00	81+60.00	44.00LT.	221.0	
2700 N	81+60.00	44.00	83+90.00	44.00LT.	231.0	
2700 N	81+60.00	44.00	83+90.00	44.00RT.	229.0	
2700 N	83+90.00	44.00	86+20.00	44.00LT.	231.0	
2700 N	83+90.00	44.00	86+20.00	44.00RT.	229.0	
2700 N	86+20.00	44.00	87+90.00	44.00LT.	171.0	

Detailed Report**SP-0134(2)11****Version: 1****2700 NORTH; I-15 TO WASHINGTON**

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	86+20.00	44.00	87+90.00	44.00RT.	169.0	
2700 N	89+20.00	44.00	91+80.00	44.00LT.	261.0	
2700 N	89+20.00	44.00	91+80.00	44.00RT.	259.0	
2700 N	91+80.00	44.00	94+35.00	44.00LT.	256.0	
2700 N	91+80.00	44.00	94+35.00	44.00RT.	254.0	
2700 N	94+35.00	44.00	96+90.00	44.00RT.	255.0	
2700 N	94+35.00	44.00	96+90.00	44.00LT.	255.0	
2700 N	96+90.00	44.00	99+31.05	47.71LT.	241.0	
2700 N	96+90.00	44.00	99+41.00	44.00RT.	251.0	
2700 N	99+31.05	47.71	100+60.00	44.00LT.	129.0	
2700 N	99+41.00	44.00	100+77.00	44.00RT.	136.0	
					17,283.0	

02645001* 2x3 Box Culvert

360 ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	9+78.36	57.71	13+29.74	51.65LT.	360.0	IRRIGATION BOX CULVERT
					360.0	

02716001* Stress Absorbing Membrane Interface

7,300 sq yd

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	43+00.00		48+50.00	LT/RT	1,463.0	PAVEMENT DETAIL D
2700 N	51+00.00		64+96.65	LT/RT	5,135.0	PAVEMENT DETAIL D
SR-89	2016+16.34		2017+16.50	LT/RT	385.0	PAVEMENT DETAIL D
SR-89	2017+78.73		2018+66.06	LT/RT	305.0	PAVEMENT DETAIL D
					7,288.0	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
027210050	Untreated Base Course 3/4 inch Max				76,600	Ton
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2100+00.00		2106+59.91	RT.	938.0	PAVEMENT DETAIL G
1000 W	2106+59.91		2108+39.99	RT.	219.0	PAVEMENT DETAIL G
1000 W	2108+39.99		2108+78.87	RT.	59.0	PAVEMENT DETAIL B
1000 W	2200+42.32		2200+81.19	LT/RT	88.0	PAVEMENT DETAIL A
1000 W	2200+43.14		2200+81.19	RT.	43.0	PAVEMENT DETAIL B
1000 W	2200+81.19		2202+52.36	RT.	123.0	PAVEMENT DETAIL G
1000 W	2202+52.36		2203+52.81	RT.	59.0	PAVEMENT DETAIL G
1500 W	1000+38.58		1002+65.37	LT/RT	276.0	PAVEMENT DETAIL A
1500 W	1100+43.00		1100+85.50	LT/RT	166.0	PAVEMENT DETAIL A
1850 W	400+39.82		401+56.70	LT/RT	297.0	PAVEMENT DETAIL A
1850 W	500+41.97		500+76.88	LT/RT	94.0	PAVEMENT DETAIL A
2700 N	154+30.96		155+46.52	LT.	125.0	PAVEMENT DETAIL B
2700 N	154+67.57		161+00.00	RT.	1,421.0	PAVEMENT DETAIL B
2700 N	161+00.00		163+58.78	LT/RT	1,121.0	PAVEMENT DETAIL B
2700 N	21+34.43		26+50.00	LT/RT	2,286.0	PAVEMENT DETAIL A
2700 N	26+50.00		43+00.00	LT.	3,079.0	PAVEMENT DETAIL A
2700 N	26+50.00		43+00.00	LT/RT	691.0	PAVEMENT DETAIL C - SEE DT-12 FOR UTBC
2700 N	26+50.00		43+00.00	RT.	1,271.0	PAVEMENT DETAIL A
2700 N	37+71.31		38+14.20	RT.	91.0	PAVEMENT DETAIL A
2700 N	43+00.00		48+50.00	RT.	1,069.0	PAVEMENT DETAIL A
2700 N	43+00.00		48+50.00	LT.	1,019.0	PAVEMENT DETAIL A
2700 N	48+50.00		49+61.13	LT.	224.0	PAVEMENT DETAIL A
2700 N	48+50.00		49+82.41	RT.	276.0	PAVEMENT DETAIL A
2700 N	49+51.01		51+00.00	LT.	313.0	PAVEMENT DETAIL A
2700 N	49+72.29		51+00.00	RT.	261.0	PAVEMENT DETAIL A
2700 N	51+00.00		62+22.84	LT.	1,646.0	PAVEMENT DETAIL A
2700 N	51+00.00		62+63.19	RT.	1,936.0	PAVEMENT DETAIL A
2700 N	62+78.69		69+52.70	LT.	643.0	PAVEMENT DETAIL A
2700 N	63+14.88		69+52.70	RT.	622.0	PAVEMENT DETAIL A
2700 N	64+96.65		69+52.70	LT/RT	532.0	PAVEMENT DETAIL C - SEE DT-12 FOR UTBC
2700 N	69+52.70		154+67.57	LT/RT	38,550.0	PAVEMENT DETAIL B
2700 N	8+80.00		9+60.00	LT/RT	686.0	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	LT/RT	850.0	PAVEMENT DETAIL C - SEE DT-12 FOR UTBC

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	9+60.00		21+34.43	LT.	1,996.0	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	RT.	1,644.0	PAVEMENT DETAIL A
600 W	2403+35.00		2405+00.00	LT/RT	280.0	PAVEMENT DETAIL G
600 W	2405+00.00		2406+68.80	LT/RT	481.0	PAVEMENT DETAIL G
600 W	2406+68.80		2407+22.98	LT/RT	169.0	PAVEMENT DETAIL B
600 W	2500+35.55		2500+89.72	LT/RT	169.0	PAVEMENT DETAIL B
600 W	2500+89.72		2502+71.66	LT/RT	519.0	PAVEMENT DETAIL G
600 W	2502+71.66		2503+36.18	LT.	81.0	PAVEMENT DETAIL G
600 W	2502+71.66		2505+21.08	LT/RT	243.0	PAVEMENT DETAIL G
ACD					296.0	ASPHALT CONCRETE DRIVEWAYS
G ACC					256.0	GRAVEL ACCESSES
HILLSB	2700+41.12		2700+83.87	LT/RT	127.0	PAVEMENT DETAIL B
HILLSB	2700+83.87		2702+07.56	LT.	111.0	PAVEMENT DETAIL G
HILLSB	2700+83.87		2702+80.20	RT.	230.0	PAVEMENT DETAIL G
HILLSB	2800+42.89		2800+84.13	LT/RT	128.0	PAVEMENT DETAIL B
HILLSB	2800+84.13		2801+10.00	LT/RT	60.0	PAVEMENT DETAIL G
PRKLND	900+41.19		900+89.57	LT/RT	176.0	PAVEMENT DETAIL A
SM-17					3,124.86	TRANSFERRED FROM SM-17 (CURB, GUTTER, SIDEWALK SUMMARY)
SM-52					2,317.4	TRANSFERRED FROM SM-52 (LANDSCAPING SUMMARY)
SPILOWY					46.0	DETENTION POND SPILLWAY
SR-89	1999+70.87		2005+90.87	RT.	789.0	PAVEMENT DETAIL F
SR-89	2008+49.06		2012+83.50	RT.	504.0	PAVEMENT DETAIL F
SR-89	2014+97.40		2016+78.05	RT.	384.0	PAVEMENT DETAIL A
SR-89	2016+54.79		2017+16.50	LT.	55.0	PAVEMENT DETAIL A
SR-89	2017+58.77		2018+28.57	RT.	45.0	PAVEMENT DETAIL A
SR-89	2018+16.44		2019+76.00	LT.	325.0	PAVEMENT DETAIL A
SR-89	2018+17.40		2021+06.61	RT.	118.0	PAVEMENT DETAIL F
SR-89	2019+76.00		2024+21.00	LT.	424.0	PAVEMENT DETAIL F
WSATCH	800+39.95		801+79.93	LT/RT	249.0	PAVEMENT DETAIL A
WSATCH	850+40.74		850+78.36	LT/RT	128.0	PAVEMENT DETAIL A
					76,549.26	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
027410050	HMA - 1/2 inch					400	Ton
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2101+65.68		2105+90.05	LT/RT	88.0	PAVEMENT DETAIL E	
1000 W	2105+90.05		2108+39.99	LT/RT	51.0	PAVEMENT DETAIL E	
2700 N	154+67.57		161+00.00	LT.	196.0	PAVEMENT DETAIL E - MILL 12' SHOULDER	
600 W	2403+35.00		2405+00.00	LT.	31.0	PAVEMENT DETAIL E	
					366.0		

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SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02741006P	HMA - 3/4 inch					60,800	Ton
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2100+00.00		2101+65.68	LT.	45.0	PAVEMENT DETAIL E	
1000 W	2100+00.00		2106+59.91	RT.	618.0	PAVEMENT DETAIL G	
1000 W	2101+65.68		2105+90.05	LT/RT	139.0	PAVEMENT DETAIL E	
1000 W	2105+90.05		2108+39.99	LT/RT	84.0	PAVEMENT DETAIL E	
1000 W	2106+59.91		2108+39.99	RT.	142.0	PAVEMENT DETAIL G	
1000 W	2108+39.99		2108+78.87	RT.	40.0	PAVEMENT DETAIL B	
1000 W	2200+42.32		2200+81.19	LT/RT	73.0	PAVEMENT DETAIL A	
1000 W	2200+43.14		2200+81.19	RT.	27.0	PAVEMENT DETAIL B	
1000 W	2200+81.19		2202+52.36	RT.	71.0	PAVEMENT DETAIL G	
1000 W	2202+52.36		2203+52.81	RT.	32.0	PAVEMENT DETAIL G	
1500 W	1000+38.58		1002+65.37	LT/RT	213.0	PAVEMENT DETAIL A	
1500 W	1100+43.00		1100+85.50	LT/RT	135.0	PAVEMENT DETAIL A	
1850 W	400+39.82		401+56.70	LT/RT	241.0	PAVEMENT DETAIL A	
1850 W	500+41.97		500+76.88	LT/RT	76.0	PAVEMENT DETAIL A	
2700 N	154+30.96		155+46.52	LT.	86.0	PAVEMENT DETAIL B	
2700 N	154+67.57		161+00.00	LT.	411.0	PAVEMENT DETAIL E - MILL 12' SHOULDER	
2700 N	154+67.57		161+00.00	RT.	1,068.0	PAVEMENT DETAIL B	
2700 N	161+00.00		163+58.78	LT/RT	875.0	PAVEMENT DETAIL B	
2700 N	21+34.43		26+50.00	LT/RT	2,009.0	PAVEMENT DETAIL A	
2700 N	26+50.00		43+00.00	LT/RT	2,918.0	PAVEMENT DETAIL C	
2700 N	26+50.00		43+00.00	RT.	1,269.0	PAVEMENT DETAIL A	
2700 N	26+50.00		43+00.00	LT.	2,667.0	PAVEMENT DETAIL A	
2700 N	37+71.31		38+14.20	RT.	73.0	PAVEMENT DETAIL A	
2700 N	43+00.00		48+50.00	LT/RT	239.0	PAVEMENT DETAIL D	
2700 N	43+00.00		48+50.00	RT.	910.0	PAVEMENT DETAIL A	
2700 N	43+00.00		48+50.00	LT.	867.0	PAVEMENT DETAIL A	
2700 N	48+50.00		49+61.13	LT.	33.0	PAVEMENT DETAIL A	
2700 N	48+50.00		49+82.41	RT.	46.0	PAVEMENT DETAIL A	
2700 N	49+51.01		51+00.00	LT.	270.0	PAVEMENT DETAIL A	
2700 N	49+72.29		51+00.00	RT.	228.0	PAVEMENT DETAIL A	
2700 N	51+00.00		62+22.84	LT.	1,392.0	PAVEMENT DETAIL A	
2700 N	51+00.00		62+63.19	RT.	1,636.0	PAVEMENT DETAIL A	
2700 N	51+00.00		64+96.65	LT/RT	838.0	PAVEMENT DETAIL D	

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	62+78.69		69+52.70	LT.	515.0	PAVEMENT DETAIL A
2700 N	63+14.88		69+52.70	RT.	522.0	PAVEMENT DETAIL A
2700 N	64+96.65		69+52.70	LT/RT	1,028.0	PAVEMENT DETAIL C
2700 N	69+52.70		154+67.57	LT/RT	28,757.0	PAVEMENT DETAIL B
2700 N	8+80.00		9+60.00	LT/RT	602.0	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	LT/RT	1,686.0	PAVEMENT DETAIL C
2700 N	9+60.00		21+34.43	RT.	1,384.0	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	LT.	1,701.0	PAVEMENT DETAIL A
600 W	2403+35.00		2405+00.00	LT.	51.0	PAVEMENT DETAIL E
600 W	2403+35.00		2405+00.00	LT/RT	189.0	PAVEMENT DETAIL G
600 W	2405+00.00		2406+68.80	LT/RT	318.0	PAVEMENT DETAIL G
600 W	2406+68.80		2407+22.98	LT/RT	119.0	PAVEMENT DETAIL B
600 W	2500+35.55		2500+89.72	LT/RT	119.0	PAVEMENT DETAIL B
600 W	2500+89.72		2502+71.66	LT/RT	343.0	PAVEMENT DETAIL G
600 W	2502+71.66		2503+36.18	LT.	53.0	PAVEMENT DETAIL G
600 W	2502+71.66		2505+21.08	LT/RT	153.0	PAVEMENT DETAIL G
ACD					192.0	ASPHALT CONCRETE DRIVEWAYS
CHISL					295.0	CHANNELIZING ISLANDS
HILLSB	2700+41.12		2700+83.87	LT/RT	87.0	PAVEMENT DETAIL B
HILLSB	2700+83.87		2702+07.56	LT.	76.0	PAVEMENT DETAIL G
HILLSB	2700+83.87		2702+80.20	RT.	146.0	PAVEMENT DETAIL G
HILLSB	2800+42.89		2800+84.13	LT/RT	88.0	PAVEMENT DETAIL B
HILLSB	2800+84.13		2801+10.00	LT/RT	39.0	PAVEMENT DETAIL G
PRKLND	900+41.19		900+89.57	LT/RT	144.0	PAVEMENT DETAIL A
SR-89	1999+70.87		2005+90.87	RT.	578.0	PAVEMENT DETAIL F
SR-89	2008+49.06		2012+83.50	RT.	363.0	PAVEMENT DETAIL F
SR-89	2014+97.40		2016+78.05	RT.	332.0	PAVEMENT DETAIL A
SR-89	2016+16.34		2017+16.50	LT/RT	63.0	PAVEMENT DETAIL D
SR-89	2016+54.79		2017+16.50	LT.	39.0	PAVEMENT DETAIL A
SR-89	2017+58.77		2018+28.57	RT.	32.0	PAVEMENT DETAIL A
SR-89	2017+78.73		2018+66.06	LT/RT	50.0	PAVEMENT DETAIL D
SR-89	2018+16.44		2019+76.00	LT.	279.0	PAVEMENT DETAIL A
SR-89	2018+17.40		2021+06.61	RT.	60.0	PAVEMENT DETAIL F
SR-89	2019+76.00		2024+21.00	LT.	291.0	PAVEMENT DETAIL F
WSATCH	800+39.95		801+79.93	LT/RT	204.0	PAVEMENT DETAIL A

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
WSATCH	850+40.74		850+78.36	LT/RT	104.0	PAVEMENT DETAIL A
					60,773.0	

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
027480010	Liquid Asphalt MC-70 or MC-250				126	Ton
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2100+00.00		2106+59.91	RT.	1.52	PAVEMENT DETAIL G
1000 W	2106+59.91		2108+39.99	RT.	0.35	PAVEMENT DETAIL G
1000 W	2108+39.99		2108+78.87	RT.	0.09	PAVEMENT DETAIL B
1000 W	2200+42.32		2200+81.19	LT/RT	0.14	PAVEMENT DETAIL A
1000 W	2200+43.14		2200+81.19	RT.	0.06	PAVEMENT DETAIL B
1000 W	2200+81.19		2202+52.36	RT.	0.17	PAVEMENT DETAIL G
1000 W	2202+52.36		2203+52.81	RT.	0.08	PAVEMENT DETAIL G
1500 W	1000+38.58		1002+65.37	LT/RT	0.42	PAVEMENT DETAIL A
1500 W	1100+43.00		1100+85.50	LT/RT	0.27	PAVEMENT DETAIL A
1850 W	400+39.82		401+56.70	LT/RT	0.47	PAVEMENT DETAIL A
1850 W	500+41.97		500+76.88	LT/RT	0.15	PAVEMENT DETAIL A
2700 N	154+30.96		155+46.52	LT.	0.19	PAVEMENT DETAIL B
2700 N	154+67.57		161+00.00	RT.	2.42	PAVEMENT DETAIL B
2700 N	161+00.00		163+58.78	LT/RT	1.98	PAVEMENT DETAIL B
2700 N	21+34.43		26+50.00	LT/RT	3.94	PAVEMENT DETAIL A
2700 N	26+50.00		43+00.00	LT/RT	5.72	PAVEMENT DETAIL C
2700 N	26+50.00		43+00.00	LT.	5.23	PAVEMENT DETAIL A
2700 N	26+50.00		43+00.00	RT.	2.49	PAVEMENT DETAIL A
2700 N	37+71.31		38+14.20	RT.	0.14	PAVEMENT DETAIL A
2700 N	43+00.00		48+50.00	RT.	1.79	PAVEMENT DETAIL A
2700 N	43+00.00		48+50.00	LT.	1.7	PAVEMENT DETAIL A
2700 N	48+50.00		49+61.13	LT.	0.06	PAVEMENT DETAIL A
2700 N	48+50.00		49+82.41	RT.	0.09	PAVEMENT DETAIL A
2700 N	49+51.01		51+00.00	LT.	0.53	PAVEMENT DETAIL A
2700 N	49+72.29		51+00.00	RT.	0.45	PAVEMENT DETAIL A
2700 N	51+00.00		62+22.84	LT.	2.73	PAVEMENT DETAIL A
2700 N	51+00.00		62+63.19	RT.	3.21	PAVEMENT DETAIL A
2700 N	62+78.69		69+52.70	LT.	1.01	PAVEMENT DETAIL A
2700 N	63+14.88		69+52.70	RT.	1.02	PAVEMENT DETAIL A
2700 N	64+96.65		69+52.70	LT/RT	2.02	PAVEMENT DETAIL C
2700 N	69+52.70		154+67.57	LT/RT	65.09	PAVEMENT DETAIL B
2700 N	8+80.00		9+60.00	LT/RT	1.18	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	RT.	2.72	PAVEMENT DETAIL A

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	9+60.00		21+34.43	LT/RT	3.31	PAVEMENT DETAIL C
2700 N	9+60.00		21+34.43	LT.	3.34	PAVEMENT DETAIL A
600 W	2403+35.00		2405+00.00	LT/RT	0.46	PAVEMENT DETAIL G
600 W	2405+00.00		2406+68.80	LT/RT	0.78	PAVEMENT DETAIL G
600 W	2406+68.80		2407+22.98	LT/RT	0.27	PAVEMENT DETAIL B
600 W	2500+35.55		2500+89.72	LT/RT	0.27	PAVEMENT DETAIL B
600 W	2500+89.72		2502+71.66	LT/RT	0.84	PAVEMENT DETAIL G
600 W	2502+71.66		2503+36.18	LT.	0.13	PAVEMENT DETAIL G
600 W	2502+71.66		2505+21.08	LT/RT	0.37	PAVEMENT DETAIL G
ACD					0.69	ASPHALT CONCRETE DRIVEWAYS
HILLSB	2700+41.12		2700+83.87	LT/RT	0.2	PAVEMENT DETAIL B
HILLSB	2700+83.87		2702+07.56	LT.	0.19	PAVEMENT DETAIL G
HILLSB	2700+83.87		2702+80.20	RT.	0.36	PAVEMENT DETAIL G
HILLSB	2800+42.89		2800+84.13	LT/RT	0.2	PAVEMENT DETAIL B
HILLSB	2800+84.13		2801+10.00	LT/RT	0.09	PAVEMENT DETAIL G
PRKLND	900+41.19		900+89.57	LT/RT	0.28	PAVEMENT DETAIL A
SR-89	1999+70.87		2005+90.87	RT.	1.22	PAVEMENT DETAIL F
SR-89	2008+49.06		2012+83.50	RT.	0.76	PAVEMENT DETAIL F
SR-89	2014+97.40		2016+78.05	RT.	0.65	PAVEMENT DETAIL A
SR-89	2016+54.79		2017+16.50	LT.	0.08	PAVEMENT DETAIL A
SR-89	2017+58.77		2018+28.57	RT.	0.06	PAVEMENT DETAIL A
SR-89	2018+16.44		2019+76.00	LT.	0.55	PAVEMENT DETAIL A
SR-89	2018+17.40		2021+06.61	RT.	0.13	PAVEMENT DETAIL F
SR-89	2019+76.00		2024+21.00	LT.	0.61	PAVEMENT DETAIL F
WSATCH	800+39.95		801+79.93	LT/RT	0.4	PAVEMENT DETAIL A
WSATCH	850+40.74		850+78.36	LT/RT	0.2	PAVEMENT DETAIL A

125.87

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
027480050	Emulsified Asphalt SS-1H					112	Ton
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2100+00.00		2101+65.68	LT.	0.11	PAVEMENT DETAIL E	
1000 W	2100+00.00		2106+59.91	RT.	0.62	PAVEMENT DETAIL G	
1000 W	2101+65.68		2105+90.05	LT/RT	0.34	PAVEMENT DETAIL E	
1000 W	2105+90.05		2108+39.99	LT/RT	0.2	PAVEMENT DETAIL E	
1000 W	2106+59.91		2108+39.99	RT.	0.14	PAVEMENT DETAIL G	
1000 W	2108+39.99		2108+78.87	RT.	0.07	PAVEMENT DETAIL B	
1000 W	2200+42.32		2200+81.19	LT/RT	0.12	PAVEMENT DETAIL A	
1000 W	2200+43.14		2200+81.19	RT.	0.05	PAVEMENT DETAIL B	
1000 W	2200+81.19		2202+52.36	RT.	0.07	PAVEMENT DETAIL G	
1000 W	2202+52.36		2203+52.81	RT.	0.03	PAVEMENT DETAIL G	
1500 W	1000+38.58		1002+65.37	LT/RT	0.34	PAVEMENT DETAIL A	
1500 W	1100+43.00		1100+85.50	LT/RT	0.22	PAVEMENT DETAIL A	
1850 W	400+39.82		401+56.70	LT/RT	0.38	PAVEMENT DETAIL A	
1850 W	500+41.97		500+76.88	LT/RT	0.12	PAVEMENT DETAIL A	
2700 N	154+30.96		155+46.52	LT.	0.16	PAVEMENT DETAIL B	
2700 N	154+67.57		161+00.00	LT.	2.58	PAVEMENT DETAIL E	
2700 N	154+67.57		161+00.00	RT.	1.96	PAVEMENT DETAIL B	
2700 N	161+00.00		163+58.78	LT/RT	1.61	PAVEMENT DETAIL B	
2700 N	21+34.43		26+50.00	LT/RT	3.2	PAVEMENT DETAIL A	
2700 N	26+50.00		43+00.00	LT.	4.25	PAVEMENT DETAIL A	
2700 N	26+50.00		43+00.00	RT.	2.02	PAVEMENT DETAIL A	
2700 N	26+50.00		43+00.00	LT/RT	4.65	PAVEMENT DETAIL C	
2700 N	37+71.31		38+14.20	RT.	0.12	PAVEMENT DETAIL A	
2700 N	43+00.00		48+50.00	RT.	1.45	PAVEMENT DETAIL A	
2700 N	43+00.00		48+50.00	LT/RT	1.43	PAVEMENT DETAIL D	
2700 N	43+00.00		48+50.00	LT.	1.38	PAVEMENT DETAIL A	
2700 N	48+50.00		49+61.13	LT.	0.05	PAVEMENT DETAIL A	
2700 N	48+50.00		49+82.41	RT.	0.07	PAVEMENT DETAIL A	
2700 N	49+51.01		51+00.00	LT.	0.43	PAVEMENT DETAIL A	
2700 N	49+72.29		51+00.00	RT.	0.36	PAVEMENT DETAIL A	
2700 N	51+00.00		62+22.84	LT.	2.22	PAVEMENT DETAIL A	
2700 N	51+00.00		62+63.19	RT.	2.61	PAVEMENT DETAIL A	
2700 N	51+00.00		64+96.65	LT/RT	6.58	PAVEMENT DETAIL D	

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	62+78.69		69+52.70	LT.	0.82	PAVEMENT DETAIL A
2700 N	63+14.88		69+52.70	RT.	0.83	PAVEMENT DETAIL A
2700 N	64+96.65		69+52.70	LT/RT	1.64	PAVEMENT DETAIL C
2700 N	69+52.70		154+67.57	LT/RT	52.92	PAVEMENT DETAIL B
2700 N	8+80.00		9+60.00	LT/RT	0.96	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	RT.	2.21	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	LT.	2.71	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	LT/RT	2.69	PAVEMENT DETAIL C
600 W	2403+35.00		2405+00.00	LT/RT	0.19	PAVEMENT DETAIL G
600 W	2403+35.00		2405+00.00	LT.	0.12	PAVEMENT DETAIL E
600 W	2405+00.00		2406+68.80	LT/RT	0.32	PAVEMENT DETAIL G
600 W	2406+68.80		2407+22.98	LT/RT	0.22	PAVEMENT DETAIL B
600 W	2500+35.55		2500+89.72	LT/RT	0.22	PAVEMENT DETAIL B
600 W	2500+89.72		2502+71.66	LT/RT	0.34	PAVEMENT DETAIL G
600 W	2502+71.66		2503+36.18	LT.	0.05	PAVEMENT DETAIL G
600 W	2502+71.66		2505+21.08	LT/RT	0.15	PAVEMENT DETAIL G
ACD					0.29	ASPHALT CONCRETE DRIVEWAYS
CHISL					0.59	CHANNELIZING ISLANDS
HILLSB	2700+41.12		2700+83.87	LT/RT	0.16	PAVEMENT DETAIL B
HILLSB	2700+83.87		2702+07.56	LT.	0.08	PAVEMENT DETAIL G
HILLSB	2700+83.87		2702+80.20	RT.	0.15	PAVEMENT DETAIL G
HILLSB	2800+42.89		2800+84.13	LT/RT	0.16	PAVEMENT DETAIL B
HILLSB	2800+84.13		2801+10.00	LT/RT	0.04	PAVEMENT DETAIL G
PRKLND	900+41.19		900+89.57	LT/RT	0.23	PAVEMENT DETAIL A
SR-89	1999+70.87		2005+90.87	RT.	0.49	PAVEMENT DETAIL F
SR-89	2008+49.06		2012+83.50	RT.	0.31	PAVEMENT DETAIL F
SR-89	2014+97.40		2016+78.05	RT.	0.53	PAVEMENT DETAIL A
SR-89	2016+16.34		2017+16.50	LT/RT	0.49	PAVEMENT DETAIL D
SR-89	2016+54.79		2017+16.50	LT.	0.06	PAVEMENT DETAIL A
SR-89	2017+58.77		2018+28.57	RT.	0.05	PAVEMENT DETAIL A
SR-89	2017+78.73		2018+66.06	LT/RT	0.39	PAVEMENT DETAIL D
SR-89	2018+16.44		2019+76.00	LT.	0.44	PAVEMENT DETAIL A
SR-89	2018+17.40		2021+06.61	RT.	0.05	PAVEMENT DETAIL F
SR-89	2019+76.00		2024+21.00	LT.	0.25	PAVEMENT DETAIL F
WSATCH	800+39.95		801+79.93	LT/RT	0.33	PAVEMENT DETAIL A

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
WSATCH	850+40.74		850+78.36	LT/RT	0.17	PAVEMENT DETAIL A
					111.59	

027490010 Asphalt Concrete Driveway

11 Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2104+76.82	28.00		LT.	1.0	69' WIDE
1000 W	2106+46.95	39.95		LT.	1.0	40' WIDE
1000 W	2201+42.85	35.44		RT.	1.0	40' WIDE
2700 N	10+99.97	58.00		LT.	1.0	40' WIDE
2700 N	15+23.32	74.89		RT.	1.0	44.25' WIDE
2700 N	31+85.00	64.00		RT.	1.0	40' WIDE
2700 N	33+16.40	71.43		RT.	1.0	34' WIDE
2700 N	37+20.00	94.96		LT.	1.0	40' WIDE
2700 N	56+26.39	83.32		RT.	1.0	26' WIDE
2700 N	65+66.35	68.32		RT.	1.0	52' WIDE
SR-89	2009+94.38	60.47		RT.	1.0	40' WIDE
					11.0	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02765003*	Remove Pavement Markings					1,380	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1850 W	400+91.93	0.29	402+20.00	9.43LT/RT	128.58		
2700 N	163+58.79		163+67.50	LT.	8.72		
2700 N	163+58.79		163+68.07	RT.	9.3		
2700 N	163+58.79		163+68.26	RT.	9.48		
2700 N	163+58.79		163+69.55	RT.	11.79		
2700 N	163+58.79		163+73.99	LT.	17.37		
2700 N	163+69.32		163+69.55	LT/RT	62.0		
2700 N	163+73.49		163+75.05	LT/RT	95.0		
2700 N	163+82.06		163+84.46	LT.	100.71		
SR-89	2013+13.75	4.59	2016+37.77	6.33LT.	324.02		
SR-89	2015+09.01	17.54	2016+21.38	17.64RT.	112.37		
SR-89	2015+76.73	18.45	2016+45.97	18.32LT.	69.24		
SR-89	2015+94.80	30.41	2016+54.79	31.21LT.	60.0		
SR-89	2018+27.92	31.09	2018+99.14	30.19RT.	71.23		
SR-89	2018+36.93	17.91	2019+17.61	18.21RT.	80.68		
SR-89	2018+45.06	6.03	2019+25.46	5.79RT.	80.4		
SR-89	2018+53.19	5.86	2019+26.48	5.99LT.	73.29		
SR-89	2018+69.36	5.86	2019+26.48	5.99LT.	57.12		
					1,371.3		

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02765005*	Pavement Marking Paint					10	gal
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2100+15.24	16		RT.	1.74	ISLAND STRIPE	
2700 N	136+49.93		136+79.93	LT.	0.19	SOLID RED PAINT ON CURB	
2700 N	140+78.45		141+08.45	LT.	0.19	SOLID RED PAINT ON CURB	
2700 N	145+47.11		145+77.11	LT.	0.19	SOLID RED PAINT ON CURB	
2700 N	150+43.77		150+73.77	LT.	0.19	SOLID RED PAINT ON CURB	
2700 N	31+33.75		31+63.75	RT.	0.19	SOLID RED PAINT ON CURB	
2700 N	48+53.82		49+55.55	LT.	0.62	RAISED ISLAND MARKING	
2700 N	48+68.74		49+57.21	RT.	0.66	RAISED ISLAND MARKING	
2700 N	49+76.22		50+59.60	LT.	0.66	RAISED ISLAND MARKING	
2700 N	49+77.87		50+78.78	RT.	0.62	RAISED ISLAND MARKING	
2700 N	57+25.52		57+55.25	RT.	0.19	SOLID RED PAINT ON CURB	
2700 N	61+85.35	45.5		LT.	1.54	RAISED ISLAND MARKING	
2700 N	63+61.72	45.5		RT.	1.42	RAISED ISLAND MARKING	
2700 N	68+83.28	44.92	69+11.73	52.65RT.	0.19	SOLID RED PAINT ON CURB	
SR-89	2005+72.70	43.26		RT.	0.69	ISLAND STRIPE	
					9.28		

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
027680005	4 inch Pavement Marking Tape - White				36,980	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2100+15.07	217.86	2108+52.62	RT.	981.0	4" SOLID WHITE
1000 W	2100+66.96	24.42	2108+52.62	LT.	791.8	4" SOLID WHITE
1000 W	2101+65.68		2107+52.62	LT.	146.74	4" SKIP WHITE
1000 W	2202+52.24		2203+22.28	RT.	70.21	4" SOLID WHITE
1500 W	1000+62.43	31.70	1001+68.82	24.28RT.	107.7	4" SOLID WHITE
2700 N	10+58.03	37.06	11+27.81	31.00RT.	17.51	4" DOTTED WHITE
2700 N	10+58.03		12+57.81	RT.	50.0	4" SKIP WHITE
2700 N	10+81.46		12+57.81	LT.	44.09	4" SKIP WHITE
2700 N	100+34.44		115+88.33	RT.	1,589.27	4" SOLID WHITE
2700 N	100+42.44		118+28.33	RT.	446.47	4" SKIP WHITE
2700 N	100+42.44		118+28.33	LT.	446.47	4" SKIP WHITE
2700 N	102+82.44		118+68.84	80.48LT.	1,610.82	4" SOLID WHITE
2700 N	119+05.23	82.35	161+31.00	RT.	4,257.13	4" SOLID WHITE
2700 N	119+47.07		154+30.96	RT.	870.97	4" SKIP WHITE
2700 N	119+47.07		154+30.96	LT.	870.97	4" SKIP WHITE
2700 N	121+87.07		154+68.09	79.30LT.	3,305.04	4" SOLID WHITE
2700 N	13+40.78	79.15	15+81.88	RT.	271.0	4" SOLID WHITE
2700 N	13+53.75		25+57.62	LT.	300.46	4" SKIP WHITE
2700 N	13+53.75		34+31.08	RT.	519.33	4" SKIP WHITE
2700 N	15+93.75		18+69.57	75.68LT.	300.0	4" SOLID WHITE
2700 N	155+46.52		158+51.00	RT.	76.12	4" SKIP WHITE
2700 N	155+46.52		163+71.00	LT.	206.12	4" SKIP WHITE
2700 N	157+86.52		163+75.00	49.32LT.	593.49	4" SOLID WHITE
2700 N	19+03.08	83.72	31+88.86	RT.	1,318.4	4" SOLID WHITE
2700 N	21+82.99		25+89.51	73.75LT.	431.21	4" SOLID WHITE
2700 N	26+73.40		28+92.37	LT.	54.87	4" SKIP WHITE
2700 N	30+22.80		34+31.85	LT.	102.26	4" SKIP WHITE
2700 N	32+62.80		34+29.34	48.34LT.	171.1	4" SOLID WHITE
2700 N	35+33.97		45+59.64	LT.	256.42	4" SKIP WHITE
2700 N	35+34.33		45+59.64	RT.	256.33	4" SKIP WHITE
2700 N	35+37.80	49.04	45+59.64	RT.	1,025.12	4" SOLID WHITE
2700 N	37+76.97		42+12.52	88.19LT.	469.58	4" SOLID WHITE
2700 N	42+90.81		45+92.13	80.29LT.	329.15	4" SOLID WHITE

Detailed Report**SP-0134(2)11****Version: 1****2700 NORTH; I-15 TO WASHINGTON**

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	46+37.00	76.18	49+76.47	RT.	365.33	4" SOLID WHITE
2700 N	46+71.00		49+41.95	LT.	67.74	4" SKIP WHITE
2700 N	46+71.00		49+45.79	LT.	274.79	4" SOLID WHITE
2700 N	46+71.00		49+70.53	RT.	299.53	4" SOLID WHITE
2700 N	49+41.95		49+51.73	LT.	9.78	4" SOLID WHITE
2700 N	49+56.95		54+20.16	LT.	463.64	4" SOLID WHITE
2700 N	49+62.89		54+26.20	LT.	463.31	4" SOLID WHITE
2700 N	49+81.69		49+91.20	RT.	9.51	4" SOLID WHITE
2700 N	49+87.63		59+51.03	RT.	963.8	4" SOLID WHITE
2700 N	49+91.20		62+08.82	RT.	304.41	4" SKIP WHITE
2700 N	54+26.20		61+87.67	LT.	190.37	4" SKIP WHITE
2700 N	58+88.91		60+52.90	LT.	41.0	4" DOTTED WHITE
2700 N	60+52.90		61+02.83	57.55LT.	53.44	4" SOLID WHITE
2700 N	63+32.90		68+89.58	LT.	139.17	4" SKIP WHITE
2700 N	63+54.04		68+89.58	RT.	133.89	4" SKIP WHITE
2700 N	64+22.44	96.95	64+96.65	RT.	100.5	4" SOLID WHITE
2700 N	64+96.65		66+60.63	RT.	41.0	4" DOTTED WHITE
2700 N	65+90.68		69+18.26	79.39LT.	356.94	4" SOLID WHITE
2700 N	67+89.58		68+89.58	RT.	100.0	4" SOLID WHITE
2700 N	70+00.44		99+43.94	LT.	735.88	4" SKIP WHITE
2700 N	70+00.44		99+43.94	RT.	735.88	4" SKIP WHITE
2700 N	71+29.38		97+03.94	RT.	2,570.36	4" SOLID WHITE
2700 N	72+40.44		99+51.48	85.48LT.	2,752.38	4" SOLID WHITE
2700 N	8+95.50	116.23	12+88.10	76.35LT.	400.0	4" SOLID WHITE
2700 N	9+85.10	43.38	10+58.03	37.06RT.	73.2	4" SOLID WHITE
600 W	2403+35.00		2405+89.78	LT.	254.98	4" SOLID WHITE
600 W	2403+35.00		2405+89.78	RT.	63.69	4" SKIP WHITE
600 W	2502+71.66		2504+98.72	RT.	228.41	4" SOLID WHITE
6000 W	2502+71.66		2503+16.21	LT.	44.63	4" SOLID WHITE
PRKLND	900+65.22	32.06	901+68.15	15.41RT.	106.0	4" SOLID WHITE
PRKLND	900+67.09	29.57	901+67.62	24.59LT.	99.0	4" SOLID WHITE
SR-89	1999+96.83	26.33	2301+57.51	10.98RT.	612.0	4" SOLID WHITE
SR-89	2008+64.56	25.82	2015+82.07	69.78RT.	773.0	4" SOLID WHITE
SR-89	2015+70.83	17.71	2016+60.83	17.71RT.	22.5	4" SKIP WHITE
SR-89	2015+76.73	18.45	2016+90.26	18.23LT.	28.38	4" SKIP WHITE
SR-89	2015+94.80	30.41	2017+08.09	44.29LT.	115.78	4" SOLID WHITE

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
SR-89	2017+87.22	43.07	2018+99.14	30.19RT.	114.14	4" SOLID WHITE
SR-89	2018+04.27	18.09	2018+97.27	18.19RT.	23.25	4" SKIP WHITE
SR-89	2018+33.65	17.88	2019+17.99	17.79LT.	21.09	4" SKIP WHITE
SR-89	2018+89.98	106.91	2023+88.55	25.79LT.	537.22	4" SOLID WHITE
					<hr/> 36,977.07	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
027680010	8 inch Pavement Marking Tape - White				8,510	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2100+15.24	16.00		RT.	400.84	ISLAND STRIPE - 8" SOLID WHITE
1000 W	2101+48.25		2101+65.68	LT.	17.43	8" SOLID WHITE
1000 W	2107+52.62		2108+52.62	LT.	100.0	8" SOLID WHITE
1000 W	2107+52.62		2108+52.62	RT.	100.0	8" SOLID WHITE
1000 W	2200+67.26		2201+67.26	LT.	100.0	8" SOLID WHITE
1500 W	1000+68.82	3.72	1001+68.82	3.72LT.	100.0	8" SOLID WHITE
1500 W	1000+69.63	15.72	1001+68.82	15.72LT.	99.19	8" SOLID WHITE
1500 W	1100+69.45	14.00	1100+85.50	14.00LT.	16.05	8" SOLID WHITE
1500 W	1100+69.45	2.00	1100+85.50	2.00LT.	16.05	8" SOLID WHITE
1500 W	400+70.47	14.00	401+70.47	14.00LT.	100.0	8" SOLID WHITE
1500 W	400+70.47	2.00	401+70.47	2.00LT.	100.0	8" SOLID WHITE
1500 W	500+62.91	7.88	501+12.91	7.94LT.	50.0	8" SOLID WHITE
2550 N	2301+68.78	1.04	2301+95.49	0.85LT.	26.71	8" SOLID WHITE
2700 N	100+42.44		101+42.44	LT.	200.0	8" SOLID WHITE
2700 N	11+27.81		12+87.42	57.12RT.	181.02	8" SOLID WHITE
2700 N	11+57.81		12+57.81	RT.	100.0	8" SOLID WHITE
2700 N	11+99.23	31.00	12+75.78	57.41RT.	83.19	8" SOLID WHITE
2700 N	117+28.33		118+28.33	RT.	200.0	8" SOLID WHITE
2700 N	119+47.07		120+47.07	LT.	200.0	8" SOLID WHITE
2700 N	12+48.51	35.00	12+81.28	57.27RT.	39.02	8" SOLID WHITE
2700 N	12+48.51	35.00	12+83.42	57.22RT.	54.14	8" SOLID WHITE
2700 N	13+53.75		14+53.75	LT.	200.0	8" SOLID WHITE
2700 N	153+30.96		154+30.96	RT.	100.0	8" SOLID WHITE
2700 N	154+80.99	60.83	154+81.55	110.85LT.	50.02	8" SOLID WHITE
2700 N	155+46.52		156+46.52	LT.	100.0	8" SOLID WHITE
2700 N	158+51.00		163+71.00	RT.	520.0	8" SOLID WHITE
2700 N	159+51.00		163+71.00	RT.	420.0	CHEVRON MARKINGS - 8" SOLID WHITE
2700 N	159+51.00		163+71.00	RT.	420.0	8" SOLID WHITE
2700 N	162+71.00		163+71.00	RT.	100.0	8" SOLID WHITE
2700 N	17+21.88		18+21.88	RT.	100.0	8" SOLID WHITE
2700 N	18+81.66	86.94	18+81.70	66.94LT.	20.0	8" SOLID WHITE
2700 N	18+90.65	98.18	18+91.78	68.20RT.	30.0	8" SOLID WHITE
2700 N	19+42.99		20+42.99	LT.	100.0	8" SOLID WHITE

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	24+57.62		25+57.62	RT.	100.0	8" SOLID WHITE
2700 N	26+73.40		27+73.40	LT.	100.0	8" SOLID WHITE
2700 N	27+92.37		28+92.37	RT.	100.0	8" SOLID WHITE
2700 N	30+22.80		31+22.80	LT.	100.0	8" SOLID WHITE
2700 N	33+28.86		34+30.05	RT.	101.19	8" SOLID WHITE
2700 N	33+28.86		34+32.10	RT.	103.24	8" SOLID WHITE
2700 N	35+32.58		36+36.97	LT.	104.39	8" SOLID WHITE
2700 N	35+35.36		36+36.97	LT.	101.62	8" SOLID WHITE
2700 N	42+24.12	98.61	42+25.31	68.61LT.	30.02	8" SOLID WHITE
2700 N	46+04.07	98.89	46+04.60	68.89LT.	30.0	8" SOLID WHITE
2700 N	46+18.99	66.57	46+19.11	96.57RT.	30.0	8" SOLID WHITE
2700 N	60+52.90		60+76.05	LT.	23.15	8" SOLID WHITE
2700 N	60+91.03		62+00.61	RT.	109.58	8" SOLID WHITE
2700 N	60+91.03		62+17.02	RT.	125.99	8" SOLID WHITE
2700 N	61+85.35	45.50		LT.	339.0	RAISED ISLAND MARKING - 8" SOLID WHITE
2700 N	63+24.69		64+50.68	LT.	125.99	8" SOLID WHITE
2700 N	63+41.10		64+50.68	LT.	109.58	8" SOLID WHITE
2700 N	63+61.72	45.50		RT.	400.36	RAISED ISLAND MARKING - 8" SOLID WHITE
2700 N	64+73.50		64+96.65	RT.	23.15	8" SOLID WHITE
2700 N	70+00.44		71+00.44	LT.	100.0	8" SOLID WHITE
2700 N	98+43.94		99+43.94	RT.	200.0	8" SOLID WHITE
600 W	2405+89.78		2406+89.78	RT.	100.0	8" SOLID WHITE
600 W	2405+89.78		2406+91.39	RT.	101.61	8" SOLID WHITE
600 W	2500+67.14		2501+68.75	LT.	101.61	8" SOLID WHITE
600 W	2500+68.75		2501+68.75	LT.	100.0	8" SOLID WHITE
HILLSB	2700+66.70		2701+16.70	LT.	50.0	8" SOLID WHITE
HILLSB	2800+62.00	8.07	2801+12.00	8.07LT.	50.0	8" SOLID WHITE
PRKLND	900+67.71	11.63	901+67.74	12.59LT.	100.0	8" SOLID WHITE
SR-89	2003+18.55	27.46	2004+98.55	27.32RT.	180.0	8" SOLID WHITE
SR-89	2005+72.70	43.26		RT.	248.09	ISLAND STRIPE - 8" SOLID WHITE
SR-89	2013+74.47	28.1	2015+29.47	29.27RT.	155.0	8" SOLID WHITE
SR-89	2015+69.03	5.54	2016+69.03	5.73RT.	100.0	8" SOLID WHITE
SR-89	2018+25.47	5.88	2019+25.47	5.78LT.	100.0	8" SOLID WHITE
SR-89	2019+47.76	29.64	2020+63.17	29.07LT.	115.41	8" SOLID WHITE
WSATCH	800+64.12	1.89	801+14.12	2.00LT.	50.0	8" SOLID WHITE

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
WSATCH	800+64.12	13.90	801+14.12	14.00LT.	50.0	8" SOLID WHITE
					8,502.64	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
027680015	4 inch Pavement Marking Tape - Yellow					40,590	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2100+15.24	16.00		RT.	103.18	ISLAND STRIPE - 4" SOLID YELLOW	
1000 W	2200+67.26		2202+51.39	RT.	368.32	4" DOUBLE SOLID YELLOW	
1500 W	1000+68.01	8.28	1001+68.82	8.28RT.	201.62	4" DOUBLE SOLID YELLOW	
1500 W	1100+69.45	10.00	1100+85.50	10.00RT.	32.1	4" DOUBLE SOLID YELLOW	
1850 W	400+70.47	10.00	402+20.22	9.34RT.	294.9	4" DOUBLE SOLID YELLOW	
1850 W	500+62.91	4.12	501+12.91	4.06RT.	100.0	4" DOUBLE SOLID YELLOW	
2550 N	2301+95.49	0.85	2303+50.00	0.06LT.	309.02	4" DOUBLE SOLID YELLOW	
2700 N	100+42.44		102+82.44	RT.	480.0	4" DOUBLE SOLID YELLOW	
2700 N	102+82.44		115+88.33	LT.	1,632.36	4" SKIP/SOLID YELLOW	
2700 N	102+82.44		115+88.33	RT.	1,632.36	4" SKIP/SOLID YELLOW	
2700 N	115+88.33		118+28.33	LT.	480.0	4" DOUBLE SOLID YELLOW	
2700 N	119+47.07		121+87.07	RT.	480.0	4" DOUBLE SOLID YELLOW	
2700 N	121+87.07		151+90.96	RT.	3,754.94	4" SKIP/SOLID YELLOW	
2700 N	121+87.07		151+90.96	LT.	3,754.94	4" SKIP/SOLID YELLOW	
2700 N	13+53.75		15+93.75	RT.	480.0	4" DOUBLE SOLID YELLOW	
2700 N	15+93.75		23+17.62	LT.	904.13	4" SKIP/SOLID YELLOW	
2700 N	15+93.75		23+17.62	RT.	905.55	4" SKIP/SOLID YELLOW	
2700 N	151+90.96		154+30.96	LT.	480.0	4" DOUBLE SOLID YELLOW	
2700 N	154+92.66	60.95	154+93.56	110.96LT.	100.04	4" DOUBLE SOLID YELLOW	
2700 N	155+46.52		161+31.00	RT.	730.6	4" SKIP/SOLID YELLOW	
2700 N	155+46.52		163+71.00	LT.	1,648.96	4" DOUBLE SOLID YELLOW	
2700 N	18+78.80	97.82	18+79.89	67.84RT.	60.0	4" DOUBLE SOLID YELLOW	
2700 N	18+93.80	87.08	18+93.80	67.08LT.	40.0	4" DOUBLE SOLID YELLOW	
2700 N	23+17.62		25+57.62	LT.	480.41	4" DOUBLE SOLID YELLOW	
2700 N	26+73.40		28+92.37	LT.	438.33	4" DOUBLE SOLID YELLOW	
2700 N	30+22.80		31+88.86	RT.	207.58	4" SKIP/SOLID YELLOW	
2700 N	30+22.80		34+28.86	LT.	812.12	4" DOUBLE SOLID YELLOW	
2700 N	35+36.97		37+76.97	RT.	480.0	4" DOUBLE SOLID YELLOW	
2700 N	37+76.97		45+59.64	RT.	978.34	4" SKIP/SOLID YELLOW	
2700 N	37+76.97		45+59.64	LT.	978.34	4" SKIP/SOLID YELLOW	
2700 N	42+36.13	98.61	42+37.32	68.61LT.	60.05	4" DOUBLE SOLID YELLOW	
2700 N	46+06.99	66.56	46+07.11	96.56RT.	60.0	4" DOUBLE SOLID YELLOW	
2700 N	46+16.07	99.01	46+16.60	69.01LT.	60.0	4" DOUBLE SOLID YELLOW	

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	46+71.00		48+03.82	LT.	166.03	4" SKIP/SOLID YELLOW
2700 N	46+71.00		48+98.08	RT.	454.16	4" DOUBLE SOLID YELLOW
2700 N	48+03.82		48+53.82	LT.	100.0	4" DOUBLE SOLID YELLOW
2700 N	49+52.31		49+57.06	LT.	9.5	4" DOUBLE SOLID YELLOW
2700 N	49+56.51		49+64.04	RT.	15.06	4" DOUBLE SOLID YELLOW
2700 N	49+69.35		49+76.98	LT.	15.26	4" DOUBLE SOLID YELLOW
2700 N	49+76.28		49+80.92	RT.	9.28	4" DOUBLE SOLID YELLOW
2700 N	50+30.28		54+26.20	LT.	791.84	4" DOUBLE SOLID YELLOW
2700 N	50+78.78		54+26.20	RT.	694.84	4" DOUBLE SOLID YELLOW
2700 N	54+26.20		59+51.03	LT.	656.04	4" SKIP/SOLID YELLOW
2700 N	54+26.20		59+51.03	RT.	656.04	4" SKIP/SOLID YELLOW
2700 N	59+51.03		61+91.03	LT.	480.0	4" DOUBLE SOLID YELLOW
2700 N	61+85.35	45.50		LT.	73.5	RAISED ISLAND MARKING - 4" SOLID YELLOW
2700 N	63+50.68		66+54.97	RT.	608.58	4" DOUBLE SOLID YELLOW
2700 N	63+61.72	45.50		RT.	103.2	RAISED ISLAND MARKING - 4" SOLID YELLOW
2700 N	65+90.68		68+89.58	LT.	597.8	4" DOUBLE SOLID YELLOW
2700 N	70+00.44		72+40.44	RT.	480.0	4" DOUBLE SOLID YELLOW
2700 N	70+00.44		72+40.44	LT.	480.0	4" DOUBLE SOLID YELLOW
2700 N	72+40.44		97+03.94	LT.	3,079.38	4" SKIP/SOLID YELLOW
2700 N	72+40.44		97+03.94	RT.	3,079.38	4" SKIP/SOLID YELLOW
2700 N	8+80.00		10+17.81	RT.	275.62	4" DOUBLE SOLID YELLOW
2700 N	9+76.10		12+57.81	LT.	563.42	4" DOUBLE SOLID YELLOW
2700 N	97+03.94		99+43.94	LT.	480.0	4" DOUBLE SOLID YELLOW
600 W	2403+35.00		2404+99.78	LT.	205.97	4" SKIP/SOLID YELLOW
600 W	2403+35.00		2404+99.78	RT.	205.97	4" SKIP/SOLID YELLOW
600 W	2404+99.78		2406+93.00	LT.	386.44	4" DOUBLE SOLID YELLOW
600 W	2500+65.53		2502+71.66	RT.	412.26	4" DOUBLE SOLID YELLOW
600 W	2502+71.66		2505+20.85	LT.	498.38	4" DOUBLE SOLID YELLOW
HILLSB	2700+66.70	4.84	2701+16.70	3.66RT.	100.0	4" DOUBLE SOLID YELLOW
HILLSB	2800+62.00	3.93	2801+12.00	3.93RT.	100.0	4" DOUBLE SOLID YELLOW
PRKLND	900+68.02	0.37	901+68.15	0.6LT.	200.0	4" DOUBLE SOLID YELLOW
SR-89	2013+13.75	4.00	2013+89.04	4.51RT.	94.11	4" SKIP/SOLID YELLOW
SR-89	2013+13.75	4.59	2013+89.05	3.67LT.	94.13	4" SKIP/SOLID YELLOW
SR-89	2013+89.05	3.67	2016+77.23	6.26LT.	576.42	4" DOUBLE SOLID YELLOW
SR-89	2018+17.28	6.11	2019+25.46	5.79RT.	216.36	4" DOUBLE SOLID YELLOW

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
WSATCH	800+64.12	10.11	801+14.12	10.00RT.	100.0	4" DOUBLE SOLID YELLOW
					40,587.16	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
027680025	Pavement Message (Tape)				546	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2107+62.62			LT.	1.0	LEFT TURN ARROW
1000 W	2107+62.62			RT.	1.0	RIGHT TURN ARROW
1000 W	2108+02.62			LT.	4.0	ONLY
1000 W	2108+42.62			RT.	1.0	RIGHT TURN ARROW
1000 W	2108+42.62			LT.	1.0	LEFT TURN ARROW
1000 W	2108+52.62	18.19		29.73LT/RT	5.0	STOP BAR
1000 W	2108+56.62	19.88		31.24LT/RT	5.0	CROSSWALK
1000 W	2108+66.62	27.08		37.70LT/RT	5.0	CROSSWALK
1000 W	2200+53.26	28.47		34.48LT/RT	4.0	CROSSWALK
1000 W	2200+63.26	24.36		26.57LT/RT	4.0	CROSSWALK
1000 W	2200+67.26	23.45		4.00LT/RT	2.0	STOP BAR
1000 W	2200+77.26			LT.	2.0	LEFT & RIGHT TURN ARROWS
1000 W	2201+17.26			LT.	4.0	ONLY
1000 W	2201+57.26			LT.	2.0	LEFT & RIGHT TURN ARROWS
1500 W	1000+51.92	38.93	1000+57.30	41.09RT/LT	5.0	CROSSWALK
1500 W	1000+62.43	31.70	1000+66.90	34.82RT/LT	5.0	CROSSWALK
1500 W	1000+68.01	8.28	1000+72.26	32.54RT/LT	3.0	STOP BAR
1500 W	1000+78.82	2.28		RT.	1.0	LEFT TURN ARROW
1500 W	1000+78.82	21.72		LT.	1.0	RIGHT TURN ARROW
1500 W	1001+58.82	2.28		RT.	1.0	LEFT TURN ARROW
1500 W	1001+58.82	21.72		LT.	1.0	RIGHT TURN ARROW
1500 W	1100+55.45	38.45	1100+55.45	38.45LT/RT	4.0	CROSSWALK
1500 W	1100+65.45	31.03	1100+65.45	31.03LT/RT	4.0	CROSSWALK
1500 W	1100+69.45	29.15	1100+69.45	10.00LT/RT	3.0	STOP BAR
1500 W	1100+79.45	20.00		LT.	1.0	RIGHT TURN ARROW
1500 W	1100+79.45	4.00		RT.	1.0	LEFT TURN ARROW
1500 W	500+53.68	22.61		22.18LT/RT	12.0	SCHOOL CROSSWALK
1500 W	500+62.91	21.07		4.12LT/RT	2.0	STOP BAR
1500 W	500+72.91	1.90		RT.	1.0	LEFT TURN ARROW
1500 W	500+72.91	13.90		LT.	2.0	RIGHT / THRU ARROWS
1850 W	400+56.47	72.10		32.14RT/LT	6.0	CROSSWALK
1850 W	400+66.47	59.18		28.20RT/LT	6.0	CROSSWALK
1850 W	400+70.47	10.00		27.35RT/LT	3.0	STOP BAR

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Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1850 W	400+80.47	4.00		RT.	2.0	LEFT TURN ARROW
1850 W	400+80.47	8.00		LT.	2.0	RIGHT TURN ARROW
1850 W	401+60.47	4.00		RT.	1.0	LEFT TURN ARROW
1850 W	401+60.47	8.00		LT.	1.0	RIGHT TURN ARROW
2500 N	2302+58.78	6.52		LT.	1.0	RIGHT TURN ARROW
2550 N	2301+78.78	7.00		LT.	1.0	RIGHT TURN ARROW
2550 N	2302+18.78	6.74		LT.	4.0	ONLY
2700 N	10+34.83			LT.	4.0	ONLY
2700 N	10+74.83			LT.	1.0	RIGHT TURN ARROW
2700 N	100+52.44			LT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	101+32.44			LT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	11+37.81			RT.	1.0	RIGHT TURN ARROW
2700 N	11+63.51			RT.	4.0	ONLY
2700 N	11+67.81			RT.	1.0	LEFT TURN ARROW
2700 N	11+89.21			RT.	1.0	RIGHT TURN ARROW
2700 N	117+38.33			RT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	118+18.33			RT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	119+57.07			LT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	12+47.81			RT.	1.0	LEFT TURN ARROW
2700 N	120+37.01			LT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	13+63.75			LT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	14+43.75			LT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	153+40.96			RT.	1.0	LEFT TURN ARROW
2700 N	154+20.96			RT.	1.0	LEFT TURN ARROW
2700 N	154+57.17	46.61	155+29.09	47.30LT.	4.0	CROSSWALK
2700 N	154+63.68	56.68	155+17.15	57.19LT.	4.0	CROSSWALK
2700 N	154+65.34	60.69	154+92.66	60.95LT.	2.0	STOP BAR
2700 N	154+74.84	70.78		LT.	1.0	RIGHT TURN ARROW
2700 N	154+86.84	70.90		LT.	1.0	LEFT TURN ARROW
2700 N	155+56.52			LT.	1.0	RIGHT TURN ARROW
2700 N	156+36.52			LT.	1.0	RIGHT TURN ARROW
2700 N	162+81.00			RT.	2.0	LEFT AND RIGHT TURN ARROW
2700 N	163+21.00			RT.	4.0	ONLY
2700 N	163+61.00			RT.	2.0	LEFT AND RIGHT TURN ARROW
2700 N	163+71.00			LT&RT	4.0	STOP BAR
2700 N	163+75.00			LT&RT	7.0	CROSSWALK

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	163+85.00			LT&RT	7.0	CROSSWALK
2700 N	17+31.88			RT.	1.0	RIGHT TURN ARROW
2700 N	18+11.88			RT.	1.0	RIGHT TURN ARROW
2700 N	18+49.01	52.97	19+08.66	54.74RT.	4.0	CROSSWALK
2700 N	18+57.74	63.21	19+04.84	64.61RT.	4.0	CROSSWALK
2700 N	18+67.68	57.87	19+14.01	58.39LT.	12.0	SCHOOL CROSSWALK
2700 N	18+68.58	66.78	18+93.80	67.08LT.	2.0	STOP BAR
2700 N	18+75.03	77.37		LT.	2.0	RIGHT/THRU ARROW
2700 N	18+79.89	67.84	19+04.01	68.59RT.	2.0	STOP BAR
2700 N	18+85.52	79.78		RT.	1.0	LEFT TURN ARROW
2700 N	18+87.03	77.37		LT.	1.0	LEFT TURN ARROW
2700 N	18+97.22	79.78		RT.	2.0	RIGHT/THRU ARROW
2700 N	19+52.99			LT.	1.0	RIGHT TURN ARROW
2700 N	20+32.99			LT.	1.0	RIGHT TURN ARROW
2700 N	24+67.62			RT.	1.0	LEFT TURN ARROW
2700 N	25+47.62			RT.	1.0	LEFT TURN ARROW
2700 N	26+83.40			LT.	1.0	RIGHT TURN ARROW
2700 N	27+63.40			LT.	1.0	RIGHT TURN ARROW
2700 N	28+02.37			RT.	1.0	LEFT TURN ARROW
2700 N	28+82.37			RT.	1.0	LEFT TURN ARROW
2700 N	30+32.80			LT.	1.0	RIGHT TURN ARROW
2700 N	31+12.80			LT.	1.0	RIGHT TURN ARROW
2700 N	33+38.86			RT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	34+18.86			RT.	2.0	LEFT & RIGHT TURN ARROW
2700 N	34+28.86	7.00	34+33.34	45.43LT/RT	4.0	STOP BAR
2700 N	34+29.34	48.34	34+37.50	47.50LT/RT	7.0	CROSSWALK
2700 N	34+38.77	55.45	34+48.16	54.41LT/RT	7.0	CROSSWALK
2700 N	35+15.67	55.45	35+28.35	54.41LT/RT	7.0	CROSSWALK
2700 N	35+26.65	47.52	35+37.80	49.04LT/RT	7.0	CROSSWALK
2700 N	35+30.89	45.67	35+36.97	7LT/RT	4.0	STOP BAR
2700 N	35+46.97			LT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	36+26.97			LT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	42+02.73	54.61	42+61.62	54.61LT.	3.0	CROSSWALK
2700 N	42+08.24	64.61	42+53.80	64.61LT.	3.0	CROSSWALK
2700 N	42+09.75	68.61	42+37.32	68.61LT.	2.0	STOP BAR
2700 N	42+18.91	78.61		LT.	1.0	RIGHT TURN ARROW

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Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	42+30.92	78.61		LT.	1.0	LEFT TURN ARROW
2700 N	45+17.12			RT.	12.0	RR X-ING, 24" TRANSVERSE BARS
2700 N	45+82.62	52.53	46+43.56	52.6RT.	3.0	CROSSWALK
2700 N	45+84.65	55.26	46+41.14	55.26LT.	3.0	CROSSWALK
2700 N	45+89.41	64.73	46+33.67	65.19LT.	3.0	CROSSWALK
2700 N	45+89.44	62.54	46+39.04	62.6RT.	3.0	CROSSWALK
2700 N	45+90.61	68.74	46+16.60	69.01LT.	2.0	STOP BAR
2700 N	45+98.42	78.82		LT.	2.0	RIGHT / THRU ARROW
2700 N	46+06.99	66.56	46+38.00	66.6RT.	2.0	STOP BAR
2700 N	46+10.42	78.95		LT.	1.0	LEFT TURN ARROW
2700 N	46+13.03	76.57		RT.	1.0	LEFT TURN ARROW
2700 N	46+25.03	76.58		RT.	2.0	RIGHT / THRU ARROW
2700 N	49+41.95			RT.	3.0	24" STOP BAR
2700 N	49+91.20			LT.	3.0	24" STOP BAR
2700 N	53+91.20			LT.	12.0	RR-XING, 24" TRANSVERSE BARS
2700 N	61+01.03			RT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	61+75.41	37.00	62+30.13	43.08LT/RT	7.0	CROSSWALK
2700 N	61+84.39			RT.	1.0	LEFT TURN ARROW
2700 N	61+87.47	37.00	62+45.15	47.33LT/RT	7.0	CROSSWALK
2700 N	61+91.03	7.00	62+25.23	43.00LT/RT	4.0	STOP BAR
2700 N	62+09.01			RT.	1.0	RIGHT TURN ARROW
2700 N	62+96.56	47.33	63+54.23	37.00LT/RT	5.0	CROSSWALK
2700 N	63+11.58	43.08	63+66.35	37.00LT/RT	5.0	CROSSWALK
2700 N	63+16.48	43.00	63+50.68	7.00LT/RT	3.0	STOP BAR
2700 N	63+32.70			LT.	1.0	RIGHT TURN ARROW
2700 N	63+58.01			LT.	1.0	LEFT TURN ARROW
2700 N	64+40.68			LT.	2.0	LEFT AND RIGHT TURN ARROWS
2700 N	67+99.58			RT.	1.0	LEFT TURN ARROW
2700 N	68+79.58			RT.	1.0	LEFT TURN ARROW
2700 N	70+10.44			LT.	1.0	RIGHT TURN ARROW
2700 N	70+90.44			LT.	1.0	RIGHT TURN ARROW
2700 N	8+44.10	38.04	9+16.81	36.88LT.	19.0	SCHOOL CROSSWALK
2700 N	9+22.13	36.73	9+35.83	58.83LT.	7.0	SCHOOL CROSSWALK
2700 N	9+94.83			LT.	1.0	RIGHT TURN ARROW
2700 N	98+53.94			RT.	2.0	LEFT & RIGHT TURN ARROWS
2700 N	99+33.94			RT.	2.0	LEFT & RIGHT TURN ARROWS

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
600 W	2405+98.17			RT.	1.0	RIGHT TURN ARROW
600 W	2406+01.39			LT.	1.0	LEFT TURN ARROW
600 W	2406+78.89			RT.	1.0	RIGHT TURN ARROW
600 W	2406+82.10			LT.	1.0	LEFT TURN ARROW
600 W	2406+87.81	28.74	2406+93.00	10.00RT/LT	3.0	STOP BAR
600 W	2406+91.63	30.34	2406+99.52	28.60RT/LT	4.0	CROSSWALK
600 W	2407+00.93	36.25	2407+10.51	35.28RT/LT	4.0	CROSSWALK
600 W	2500+48.02	35.28	2500+57.60	36.25RT/LT	4.0	CROSSWALK
600 W	2500+59.00	28.60	2500+66.90	30.34RT/LT	4.0	CROSSWALK
600 W	2500+65.53	10.00	2500+70.72	28.74RT/LT	3.0	STOP BAR
600 W	2500+76.42			RT.	1.0	LEFT TURN ARROW
600 W	2500+79.64			LT.	1.0	RIGHT TURN ARROW
600 W	2501+57.14			RT.	1.0	LEFT TURN ARROW
600 W	2501+60.35			LT.	1.0	RIGHT TURN ARROW
HILLSB	2700+52.70	30.38		30.18RT/LT	4.0	CROSSWALK
HILLSB	2700+62.70	23.54		24.31RT/LT	4.0	CROSSWALK
HILLSB	2700+66.70	3.66		22.75RT/LT	2.0	STOP BAR
HILLSB	2700+81.38	14.00		LT.	2.0	RIGHT/THRU ARROW
HILLSB	2700+81.38	2.00		LT.	1.0	LEFT TURN ARROW
HILLSB	2800+48.00	39.69		32.34RT/LT	4.0	CROSSWALK
HILLSB	2800+58.00	25.54		27.86RT/LT	4.0	CROSSWALK
HILLSB	2800+62.00	3.93		23.69RT/LT	2.0	STOP BAR
HILLSB	2800+72.00	14.07		LT.	2.0	RIGHT / THRU ARROW
HILLSB	2800+72.00	2.07		LT.	1.0	LEFT TURN ARROW
PRKLND	900+52.79	38.11	900+55.46	39.27LT/RT	5.0	CROSSWALK
PRKLND	900+63.03	31.16	900+65.22	32.06LT/RT	5.0	CROSSWALK
PRKLND	900+67.09	29.57	900+68.12	0.37LT/RT	3.0	STOP BAR
PRKLND	900+77.50	17.63		LT.	1.0	RIGHT TURN ARROW
PRKLND	900+77.91	5.63		LT.	1.0	LEFT TURN ARROW
PRKLND	901+57.50	17.63		LT.	1.0	RIGHT TURN ARROW
PRKLND	901+57.91	5.63		LT.	1.0	LEFT TURN ARROW
SR-89	2004+08.55	33.32		RT.	1.0	RIGHT TURN ARROW
SR-89	2004+88.55	33.32		RT.	1.0	RIGHT TURN ARROW
SR-89	2014+39.47	34.8		RT.	1.0	RIGHT TURN ARROW
SR-89	2015+19.47	35.27		RT.	1.0	RIGHT TURN ARROW
SR-89	2015+79.04	0.44		LT.	1.0	LEFT TURN ARROW

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Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
SR-89	2016+52.49	37.00	2017+08.09	44.29RT/LT	7.0	CROSSWALK
SR-89	2016+52.64	29.70	2016+77.23	6.26RT/LT	3.0	STOP BAR
SR-89	2016+61.03	0.29		LT.	1.0	LEFT TURN ARROW
SR-89	2016+64.60	37.00	2017+23.11	48.55RT/LT	7.0	CROSSWALK
SR-89	2017+72.22	47.33	2018+29.75	37.00RT/LT	7.0	CROSSWALK
SR-89	2017+87.22	43.07	2018+41.86	37.00RT/LT	7.0	CROSSWALK
SR-89	2018+17.28	6.11	2018+42.03	30.15RT/LT	3.0	STOP BAR
SR-89	2018+33.47	0.12		RT.	1.0	LEFT TURN ARROW
SR-89	2019+15.46	0.21		RT.	1.0	LEFT TURN ARROW
SR-89	2019+57.76	35.64		LT.	1.0	RIGHT TURN ARROW
SR-89	2020+37.76	35.64		LT.	1.0	RIGHT TURN ARROW
WSATCH	800+52.66	30.44	800+52.90	33.56LT/RT	16.0	SCHOOL CROSSWALK
WSATCH	800+64.12	26.61		10.11LT/RT	3.0	STOP BAR
WSATCH	800+74.12	20.00		LT.	1.0	RIGHT TURN ARROW
WSATCH	800+74.12	4.00		RT.	1.0	LEFT TURN ARROW
					<hr/> 546.0	

027710015 Concrete Curb Type B4

100 ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	11+19.97	55.50	11+28.51	55.50LT.	8.5	TIE TO EXISTING CURB - TRANSITION END
2700 N	9+96.55	54.00	10+79.97	54.00LT.	83.42	TIE TO EXISTING CURB - TRANSITION END
					<hr/> 91.92	

027710017 Concrete Curb Type B5

410 ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	49+05.87			LT/RT	203.02	
2700 N	50+27.14			LT/RT	201.38	
					<hr/> 404.4	

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number		Description		Use Qty		Unit
027710020		Concrete Curb Type M2		740		ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2100+15.24	16.00		RT.	235.19	
2700 N	61+85.35	45.50		LT.	203.25	
2700 N	63+61.72	45.50		RT.	227.7	
SR-89	2005+69.47	46.73		RT.	69.68	
					735.82	

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
027710025	Concrete Curb and Gutter Type B1					31,400	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2105+90.05	18.50	2108+40.01	18.50LT.	192.88	TRANSITION END	
1000 W	2106+59.90	30.50	2108+41.38	30.50RT.	181.59	TRANSITION END	
1000 W	2108+40.01	18.50	2108+64.90	28.89LT.	28.15		
1000 W	2108+41.38	30.50	2108+65.98	40.61RT.	27.74		
1000 W	2200+54.98	35.49	2200+79.18	25.16LT.	27.42		
1000 W	2200+56.30	34.89	2200+81.19	24.50RT.	28.15		
1000 W	2200+79.18	25.16	2200+81.19	25.13LT.	2.01	TIE TO EXISTING CURB	
1000 W	2200+81.19	24.50	2202+52.40	24.50RT.	117.21	TRANSITION END	
1500 W	1000+53.63	40.75	1000+80.87	29.93RT.	30.45		
1500 W	1000+61.20	42.90	1000+90.42	30.22LT.	33.24		
1500 W	1000+80.87	29.93	1001+00.00	29.87RT.	19.13	TIE TO EXISTING CURB	
1500 W	1000+90.42	30.22	1002+65.37	30.22LT.	174.95	TIE TO EXISTING CURB	
1500 W	1001+79.61	281.96	1002+08.63	269.54LT.	31.97		
1500 W	1002+08.63	269.54	1002+20.71	269.55LT.	12.08	TIE TO EXISTING CURB	
1500 W	1100+57.22	40.22	1100+85.50	28.50RT.	31.87		
1500 W	1100+57.22	40.22	1100+85.80	28.50LT.	31.87		
1850 W	400+57.03	39.86	400+81.95	29.22LT.	28.29		
1850 W	400+76.95	52.46	401+54.38	28.89RT.	83.81		
1850 W	400+81.95	29.22	400+91.94	29.16LT.	9.99	TIE TO EXISTING CURB	
1850 W	401+54.38	28.89	401+56.40	29.13RT.	2.04	TIE TO EXISTING CURB	
1850 W	500+49.44	28.88	500+61.40	22.32RT.	14.32	TIE TO EXISTING CURB	
1850 W	500+55.37	31.44	500+76.87	22.40LT.	24.42	TIE TO EXISTING CURB	
2700 N	100+19.39	54.16	100+42.44	45.50LT.	25.58		
2700 N	100+42.44	45.50	118+30.97	45.50LT.	1,711.37		
2700 N	100+45.74	57.45	100+72.08	45.50RT.	30.3		
2700 N	100+72.08	45.50	118+28.33	45.50RT.	1,689.41		
2700 N	11+87.47	45.50	12+61.49	78.25RT.	83.81		
2700 N	118+28.33	45.50	118+52.45	55.33RT.	27.28		
2700 N	118+30.97	45.50	118+55.91	55.73LT.	27.98		
2700 N	119+17.15	56.38	119+42.30	45.50RT.	28.78		
2700 N	119+21.45	56.42	119+47.06	45.50LT.	28.95		
2700 N	119+42.30	45.50	163+48.79	45.50RT.	3,992.87		
2700 N	119+47.06	45.50	154+30.96	45.50LT.	3,341.85		

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Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	12+48.94	82.23	12+68.90	103.28RT.	28.66	TIE TO EXISTING CURB
2700 N	12+55.62	45.50	12+77.11	54.57LT.	24.42	
2700 N	13+37.56	50.15	13+50.38	45.50LT.	14.32	
2700 N	13+50.38	45.50	18+36.77	45.50LT.	365.31	
2700 N	13+53.27	55.99	13+78.26	45.50RT.	28.29	
2700 N	13+78.26	45.50	18+21.88	45.50RT.	384.11	
2700 N	14+36.25	66.96	14+38.82	67.06LT.	2.57	TIE TO EXISTING CURB
2700 N	14+38.82	67.06	14+43.03	65.46LT.	4.63	
2700 N	14+43.03	65.46	14+44.80	61.31LT.	4.63	TRANSITION END
2700 N	14+84.80	61.21	14+84.80	76.95LT.	15.74	TRANSITION END - TIE TO EXISTING CURB
2700 N	15+00.88	62.17	15+01.31	74.88RT.	12.72	TRANSITION END - TIE TO EXISTING CURB
2700 N	15+45.05	69.35	15+45.21	74.94RT.	5.59	TRANSITION END - TIE TO EXISTING CURB
2700 N	154+30.96	45.50	154+55.29	55.34LT.	27.35	
2700 N	154+55.29	55.34	154+65.59	79.37LT.	27.35	
2700 N	154+65.59	79.37	154+65.67	81.94LT.	2.58	TIE TO EXISTING CURB
2700 N	155+11.53	81.12	155+21.55	55.97LT.	28.26	TIE TO EXISTING CURB
2700 N	155+21.55	55.97	155+46.52	45.50LT.	28.26	TIE TO EXISTING CURB
2700 N	163+48.79	45.50	163+58.79	45.51RT.	10.0	
2700 N	18+21.88	45.50	18+46.97	54.52RT.	27.73	
2700 N	18+36.77	45.50	18+58.20	54.34LT.	24.14	
2700 N	18+46.97	54.52	18+60.68	77.49RT.	27.73	
2700 N	18+58.20	54.34	18+67.05	75.67LT.	24.14	
2700 N	18+60.68	77.49	18+61.62	82.17RT.	4.92	TIE TO EXISTING CURB
2700 N	18+67.05	75.67	18+67.04	77.67LT.	2.0	TIE TO EXISTING CURB
2700 N	19+05.56	83.81	19+17.65	56.64RT.	30.97	TIE TO EXISTING CURB
2700 N	19+12.78	77.72	19+20.83	55.08LT.	25.16	TIE TO EXISTING CURB
2700 N	19+17.65	56.64	19+45.11	45.50RT.	30.97	
2700 N	19+20.83	55.08	19+42.99	45.50LT.	25.16	
2700 N	19+42.99	45.50	25+57.35	45.50LT.	572.48	
2700 N	19+45.11	45.50	25+57.62	45.50RT.	612.88	
2700 N	25+57.35	45.50	25+77.88	53.78LT.	23.24	
2700 N	25+57.62	45.50	25+79.51	54.81RT.	24.8	
2700 N	26+51.88	54.77	26+73.40	45.50LT.	24.67	
2700 N	26+54.87	53.87	26+75.83	45.50RT.	23.46	
2700 N	26+73.40	45.50	28+92.37	45.50LT.	220.19	
2700 N	26+75.83	45.50	34+19.17	45.50RT.	633.96	

Detailed Report**SP-0134(2)11****Version: 1****2700 NORTH; I-15 TO WASHINGTON**

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	28+92.37	45.50	29+16.69	55.52LT.	27.56	
2700 N	29+97.73	56.08	30+22.80	45.50LT.	28.41	
2700 N	30+22.80	45.50	34+08.72	45.50LT.	385.92	
2700 N	34+08.72	45.50	34+37.00	57.22LT.	31.87	
2700 N	34+19.17	45.50	34+46.45	56.24RT.	30.45	
2700 N	35+17.44	57.22	35+45.72	45.50LT.	31.87	
2700 N	35+30.42	58.18	35+59.64	45.50RT.	33.24	
2700 N	35+45.72	45.50	41+70.10	45.50LT.	568.85	
2700 N	35+59.94	45.50	45+59.64	45.50RT.	999.53	
2700 N	37+78.56	158.28	38+07.21	145.05RT.	31.97	
2700 N	38+07.21	145.05	38+12.83	144.89RT.	5.62	TIE TO EXISTING CURB
2700 N	41+70.10	45.50	41+98.94	57.78LT.	32.68	
2700 N	41+98.94	57.78	42+10.07	87.09LT.	32.68	
2700 N	42+09.96	89.86	42+10.07	87.09LT.	2.75	TIE TO EXISTING CURB
2700 N	42+50.44	89.86	42+50.90	82.90LT.	7.01	TIE TO EXISTING CURB
2700 N	42+50.90	82.90	42+63.46	56.31LT.	30.56	
2700 N	42+63.46	56.31	42+90.81	45.50LT.	30.56	
2700 N	42+90.81	45.50	45+49.95	45.50LT.	259.13	
2700 N	45+49.95	45.50	45+77.28	56.29LT.	30.53	
2700 N	45+59.64	45.50	45+80.81	54.25RT.	23.96	
2700 N	45+77.28	56.29	45+89.86	82.85LT.	30.53	
2700 N	45+80.81	54.25	45+89.64	75.38RT.	23.96	
2700 N	45+88.23	95.37	45+88.84	92.68RT.	2.62	TIE TO EXISTING CURB
2700 N	45+88.84	92.68	45+89.47	88.97RT.	3.84	
2700 N	45+89.47	88.97	45+89.67	85.20RT.	3.84	
2700 N	45+89.64	75.38	45+89.67	85.20RT.	9.81	
2700 N	45+89.86	82.85	45+89.99	84.80LT.	1.99	TIE TO EXISTING CURB
2700 N	46+31.01	84.80	46+42.97	56.97LT.	31.52	
2700 N	46+39.50	75.62	46+39.58	95.37RT.	19.75	TIE TO EXISTING CURB
2700 N	46+39.50	75.62	46+48.24	54.33RT.	24.08	
2700 N	46+42.97	56.97	46+71.00	45.50LT.	31.52	
2700 N	46+48.24	54.33	46+69.50	45.50RT.	24.08	
2700 N	46+69.50	45.50	49+83.65	45.50RT.	313.9	
2700 N	46+71.00	45.50	49+38.62	45.50LT.	297.9	TRANSITION END
2700 N	49+49.78	45.50	60+52.90	45.50LT.	1,066.83	TRANSITION END
2700 N	49+94.80	45.50	62+27.66	45.50RT.	1,148.11	TRANSITION END

Detailed Report**SP-0134(2)11****Version: 1****2700 NORTH; I-15 TO WASHINGTON**

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	60+52.90	45.50	61+14.79	82.80LT.	76.57	
2700 N	62+27.66	45.50	62+43.98	49.54RT.	17.26	
2700 N	62+97.73	49.54	63+14.05	45.50LT.	17.26	
2700 N	63+14.05	45.50	68+80.78	45.50LT.	568.31	
2700 N	64+34.52	83.27	64+96.65	45.50RT.	77.09	
2700 N	64+96.65	45.50	68+89.58	45.50RT.	266.94	
2700 N	65+30.54	65.83	65+33.60	65.85RT.	3.06	TIE TO EXISTING CURB
2700 N	65+33.60	65.85	65+38.22	63.96RT.	5.58	
2700 N	65+38.22	63.96	65+40.14	59.35RT.	5.58	TRANSITION END
2700 N	65+92.14	59.31	65+94.04	63.90RT.	5.56	TRANSITION END
2700 N	65+94.04	63.90	65+98.63	65.81RT.	5.56	
2700 N	65+98.63	65.81	66+01.78	65.82RT.	3.15	TIE TO EXISTING CURB
2700 N	68+80.78	45.50	69+05.16	55.39LT.	27.42	
2700 N	68+89.58	45.50	69+14.47	55.89RT.	28.15	
2700 N	69+75.55	55.89	70+00.44	45.50LT.	28.15	
2700 N	69+83.98	55.61	70+08.59	45.50RT.	27.74	
2700 N	70+00.44	45.50	99+14.31	45.50LT.	2,884.69	
2700 N	70+08.59	45.50	99+43.95	45.50RT.	2,859.71	
2700 N	9+20.14	73.52	9+89.56	45.50LT.	77.17	
2700 N	9+25.50	72.61	9+93.96	45.50RT.	75.84	
2700 N	9+89.56	45.50	12+55.62	45.50LT.	209.06	
2700 N	9+93.96	45.50	11+87.47	45.50RT.	193.52	
2700 N	99+14.31	45.50	99+40.65	57.45LT.	30.32	
2700 N	99+43.95	45.50	99+66.99	54.16RT.	25.6	
600 W	2403+35.00	28.50	2406+68.80	28.50RT.	333.8	
600 W	2403+35.00	28.50	2406+85.81	28.50LT.	350.81	
600 W	2406+68.80	28.50	2406+95.14	40.45RT.	30.32	
600 W	2406+85.81	28.50	2407+08.86	37.16LT.	25.16	
600 W	2500+49.67	37.16	2500+72.71	28.50RT.	25.58	
600 W	2500+63.38	40.45	2500+89.72	28.50LT.	30.32	
600 W	2500+72.71	28.50	2502+71.66	28.50RT.	199.15	TRANSITION END
600 W	2500+89.72	28.50	2502+71.66	28.50LT.	181.94	TRANSITION END
HILLSB	2700+54.31	32.29	2700+78.21	22.53RT.	27.28	
HILLSB	2700+57.33	32.79	2700+83.94	22.36LT.	28.31	
HILLSB	2700+78.21	22.53	2701+23.24	23.49RT.	50.08	
HILLSB	2700+83.94	22.36	2701+17.42	21.66LT.	29.81	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
HILLSB	2701+17.42	21.66	2701+50.76	20.86LT.	29.81	TIE TO EXISTING CURB
HILLSB	2701+23.24	23.49	2701+68.06	24.59RT.	50.08	
HILLSB	2701+68.06	24.59	2702+04.43	22.60RT.	40.61	
HILLSB	2702+04.43	22.60	2702+41.65	19.59RT.	40.61	
HILLSB	2702+41.65	19.59	2702+80.20	16.73RT.	36.78	TIE TO EXISTING CURB
HILLSB	2800+55.62	32.74	2800+80.36	22.47LT.	27.98	
HILLSB	2800+56.66	32.33	2800+82.77	22.49RT.	28.95	
HILLSB	2800+80.36	22.47	2800+94.30	22.50LT.	14.94	
HILLSB	2800+82.77	22.49	2800+93.69	22.65RT.	10.12	
HILLSB	2800+93.69	22.65	2801+10.00	22.85RT.	15.09	TIE TO EXISTING CURB
HILLSB	2800+94.30	22.50	2801+08.21	22.55LT.	14.94	
HILLSB	2801+08.21	22.55	2801+10.00	22.57LT.	1.92	TRANSITION TO SIDEWALK
PRKLND	900+54.44	39.99	900+79.01	30.24LT.	27.56	
PRKLND	900+57.24	41.03	900+82.29	30.42RT.	28.41	
PRKLND	900+79.01	30.24	900+89.01	30.33LT.	10.0	TIE TO EXISTING CURB
PRKLND	900+82.29	30.42	900+89.60	30.40RT.	7.31	TIE TO EXISTING CURB
RAMP	200+71.59	59.37	201+38.01	27.59LT.	75.84	
RAMP	201+38.01	27.59	201+47.98	26.90LT.	10.04	TRANSITION END
RAMP	300+73.99	48.88	301+42.78	19.35RT.	77.17	
RAMP	301+42.78	19.35	301+52.78	19.14RT.	10.01	TRANSITION END
SR-89	2014+97.65	50.93	2015+23.89	50.57RT.	26.25	TIE TO EXISTING CURB
SR-89	2015+23.89	50.57	2015+86.54	87.47RT.	77.09	
SR-89	2016+63.65	46.67	2017+05.63	46.71LT.	41.98	TRANSITION END
SR-89	2017+05.63	46.71	2017+21.94	50.76LT.	17.26	
SR-89	2017+73.38	49.54	2017+89.70	45.49RT.	17.26	
SR-89	2017+89.70	45.49	2021+06.61	45.25RT.	316.91	TIE TO EXISTING CURB
SR-89	2019+04.10	82.80	2019+66.00	45.50LT.	76.57	
SR-89	2019+66.00	45.50	2019+76.00	45.50LT.	10.0	TRANSITION END
WSATCH	800+51.89	36.60	800+72.61	28.49LT.	23.24	
WSATCH	800+56.69	37.76	800+78.34	28.48RT.	24.67	
WSATCH	800+72.61	28.49	800+85.68	28.50LT.	13.07	TIE TO EXISTING CURB
WSATCH	800+78.34	28.48	801+50.39	28.50RT.	72.05	TRANSITION END
WSATCH	850+52.39	36.90	850+73.22	28.50LT.	23.46	
WSATCH	850+56.61	37.84	850+78.36	28.50RT.	24.8	
WSATCH	850+73.22	28.50	850+78.36	28.50LT.	5.14	

31,314.35

Detailed Report
SP-0134(2)11
2700 NORTH; I-15 TO WASHINGTON

Version: 1

027710040 Concrete Driveway Flared, 6 inch Thick

4,380 sq ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	103+00.00	54.00		RT.	296.0	20' WIDE
2700 N	103+00.00	54.00		LT.	216.0	20' WIDE
2700 N	115+12.00	54.00		RT.	298.1	20' WIDE
2700 N	115+12.00	54.00		LT.	293.9	20' WIDE
2700 N	139+25.00	54.00		LT.	300.5	20' WIDE
2700 N	54+00.00	54.00		LT.	296.0	20' WIDE
2700 N	56+26.37	54.00		RT.	366.8	26' WIDE
2700 N	61+64.23	82.17		RT.	1,101.7	
2700 N	85+50.00	54.00		RT.	254.9	16' WIDE
2700 N	90+00.00	54.00		LT.	298.1	20' WIDE
2700 N	90+65.00	54.00		RT.	293.9	20' WIDE
600 W	2403+97.00	33.00		LT.	360.8	
					<hr/> 4,376.7	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
027710045	Concrete Driveway Flared, 7 inch Thick				11,530	sq ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2106+46.95	27.00		LT.	360.8	
1000 W	2201+42.85	33.00		RT.	348.5	
2700 N	10+99.97	54.00		LT.	520.8	40' WIDE
2700 N	121+05.00	54.00		RT.	520.8	40' WIDE
2700 N	128+20.00	54.00		RT.	520.8	40' WIDE
2700 N	131+25.00	54.00		RT.	526.3	40' WIDE
2700 N	134+09.50	54.00		RT.	527.3	40' WIDE
2700 N	134+17.50	54.00		LT.	511.6	40' WIDE
2700 N	138+28.50	54.00		RT.	405.6	40' WIDE
2700 N	138+41.50	54.00		LT.	415.9	40' WIDE
2700 N	14+64.80	63.80		LT.	900.2	40' WIDE
2700 N	141+25.00	54.00		RT.	340.5	24' WIDE
2700 N	147+45.00	54.00		RT.	346.8	24' WIDE
2700 N	149+00.00	54.00		RT.	520.5	40' WIDE
2700 N	15+21.20	50.00		RT.	391.3	44.25' WIDE
2700 N	154+55.29	55.34		LT.	79.7	
2700 N	155+21.55	55.97		LT.	80.7	
2700 N	16+36.35	61.40		LT.	909.5	45.20' WIDE
2700 N	22+85.35	54.00		LT.	353.3	25' WIDE
2700 N	31+85.00	54.00		RT.	520.8	
2700 N	33+16.40	54.00		RT.	454.8	
2700 N	37+20.00	54.00		LT.	520.8	40' WIDE
2700 N	65+66.14	59.25		RT.	927.4	52' WIDE
2700 N	68+04.52	54.00		RT.	520.8	40' WIDE
					11,525.5	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02771006*	Pedestrian Access Ramp Type B					860	sq ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2100+43.65	40.22		RT.	71.7		
1000 W	2100+69.84	5.25		RT.	71.5		
2550 N	2300+72.00	6.55		LT.	71.5		
2700 N	11+53.92	83.06		RT.	72.7		
2700 N	61+39.33	69.84		LT.	71.3		
2700 N	61+82.25	38.25		LT.	71.5		
2700 N	61+90.03	51.50		LT.	71.5		
2700 N	63+53.24	51.62		RT.	71.5		
2700 N	63+60.95	38.25		RT.	71.5		
2700 N	64+09.88	70.49		RT.	71.3		
SR-89	2005+54.80	54.07		RT.	71.3		
SR-89	2005+75.30	50.28		RT.	71.5		
					858.8		

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02771008*	Pedestrian Access Ramp Type E				3,320	sq ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	100+19.39	54.16		LT.	79.7	
2700 N	100+45.74	57.45		RT.	79.7	
2700 N	118+52.45	55.33		RT.	79.7	
2700 N	118+55.91	55.73		LT.	76.9	
2700 N	119+17.15	56.38		RT.	79.7	
2700 N	119+21.45	56.42		LT.	80.3	
2700 N	12+38.84	59.70		RT.	79.3	
2700 N	12+77.11	54.57		LT.	79.9	
2700 N	13+33.61	54.61		LT.	83.9	
2700 N	13+53.27	55.99		RT.	79.7	
2700 N	18+46.97	54.52		RT.	79.5	
2700 N	18+58.20	54.34		LT.	79.9	
2700 N	19+17.65	56.64		RT.	79.5	
2700 N	19+20.89	55.02		LT.	79.9	
2700 N	25+77.88	53.78		LT.	79.9	
2700 N	25+79.51	54.81		RT.	78.5	
2700 N	26+51.88	54.77		LT.	78.5	
2700 N	26+54.87	53.87		RT.	78.5	
2700 N	29+16.69	55.52		LT.	87.0	
2700 N	29+97.73	56.08		LT.	79.7	
2700 N	34+37.00	57.22		LT.	81.9	
2700 N	34+46.45	56.24		RT.	102.6	
2700 N	35+17.44	57.22		LT.	78.2	
2700 N	35+30.42	58.18		RT.	102.6	
2700 N	41+98.94	57.78		LT.	79.5	
2700 N	42+64.34	55.51		LT.	79.6	
2700 N	45+78.72	57.72		LT.	79.6	
2700 N	45+80.81	54.25		RT.	79.9	
2700 N	46+42.97	56.97		LT.	79.5	
2700 N	46+48.24	54.33		RT.	79.9	
2700 N	61+14.79	82.80		LT.	79.3	
2700 N	62+43.98	49.54		RT.	79.7	
2700 N	62+97.73	49.54		LT.	79.7	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	64+34.52	83.27		RT.	79.3	
2700 N	69+05.16	55.39		LT.	79.8	
2700 N	69+14.47	55.89		RT.	79.7	
2700 N	69+75.55	55.89		LT.	79.7	
2700 N	69+83.98	55.61		RT.	79.7	
2700 N	9+36.69	60.62		LT.	79.3	
2700 N	99+40.65	57.45		LT.	79.7	
2700 N	99+66.99	54.16		RT.	79.7	
					<hr/>	
					3,318.6	

027710100 Plowable End Section

8 Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2100+81.62	8.53		RT.	1.0	
2550 N	2301+06.37	9.76		LT.	1.0	
2700 N	61+22.92	42.04		LT.	1.0	
2700 N	61+53.04	99.06		LT.	1.0	
2700 N	63+95.64	107.13		RT.	1.0	
2700 N	64+26.63	42.04		RT.	1.0	
SR-89	2005+50.98	42.20		RT.	1.0	
SR-89	2005+62.93	60.88		RT.	1.0	
					<hr/>	
					8.0	

02771011* Curb End Section

2 Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	49+05.87			LT/RT	1.0	
2700 N	50+27.14			LT/RT	1.0	
					<hr/>	
					2.0	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
027760010	Concrete Sidewalk					108,830	sq ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	100+17.25	63.31	100+28.19	53.53LT.	55.4		
2700 N	100+28.19	53.53	100+42.44	50.00LT.	55.4		
2700 N	100+42.44	50.00	118+30.97	50.00LT.	7,080.6		
2700 N	100+44.82	66.81	100+56.07	54.54RT.	63.0		
2700 N	100+56.07	54.54	100+72.08	50.00RT.	63.0		
2700 N	100+72.08	50.00	118+28.33	50.00RT.	6,889.3		
2700 N	11+51.86	78.32	11+51.86	77.37RT.	3.8		
2700 N	11+51.86	77.37	11+59.62	58.04RT.	79.2		
2700 N	11+59.62	58.04	11+78.84	50.00RT.	79.2		
2700 N	11+78.84	50.00	11+87.47	50.00RT.	34.5		
2700 N	11+87.47	50.00	12+16.60	54.55RT.	115.9		
2700 N	118+28.33	50.00	118+43.13	53.90RT.	58.2		
2700 N	118+30.97	50.00	118+52.71	58.92LT.	89.6		
2700 N	118+43.13	53.90	118+54.12	64.58RT.	58.2		
2700 N	119+15.87	65.69	119+26.95	54.22RT.	60.6		
2700 N	119+20.12	65.76	119+31.44	54.23LT.	60.9		
2700 N	119+26.95	54.22	119+42.30	50.00RT.	60.6		
2700 N	119+31.44	54.23	119+47.06	50.00LT.	60.9		
2700 N	119+42.30	50.00	163+72.17	50.00RT.	17,329.9		
2700 N	119+47.06	50.00	154+30.96	50.00LT.	16,426.0		
2700 N	12+16.60	54.55	12+42.95	67.77RT.	115.9		
2700 N	12+55.62	50.00	12+68.97	53.78LT.	51.8		
2700 N	12+68.97	53.78	12+78.37	63.99LT.	51.8		
2700 N	13+34.92	64.39	13+38.36	55.71LT.	50.5		
2700 N	13+38.36	55.71	13+46.15	50.59LT.	34.8		
2700 N	13+43.26	81.18	13+63.47	53.83RT.	196.5		
2700 N	14+34.80	54.84	14+44.80	54.99LT.	56.4	TIE TO EXISTING	
2700 N	14+84.80	54.97	14+95.03	57.75LT.	51.4	TIE TO EXISTING	
2700 N	14+90.88	56.45	15+00.88	56.17RT.	60.0		
2700 N	15+44.94	63.35	15+64.94	62.43RT.	126.6		
2700 N	15+64.94	62.43	15+84.94	50.00RT.	153.0		
2700 N	15+84.94	50.00	18+21.88	50.00RT.	944.0		
2700 N	154+30.96	50.00	154+45.87	53.90LT.	58.3		

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	154+45.87	53.90	154+56.70	64.60LT.	58.3	
2700 N	155+11.57	83.41	155+19.06	67.48LT.	62.5	TIE TO EXISTING
2700 N	155+19.06	57.48	155+30.31	54.71LT.	63.4	
2700 N	155+30.31	54.71	155+46.66	49.96LT.	64.3	TIE TO EXISTING
2700 N	17+02.70	62.72	17+17.11	50.00LT.	77.0	
2700 N	17+17.11	50.00	18+36.77	50.00LT.	472.5	
2700 N	18+21.88	50.00	18+37.23	53.55RT.	60.3	
2700 N	18+36.77	50.00	18+55.00	57.52LT.	74.2	
2700 N	18+37.23	53.55	18+49.49	63.50RT.	60.3	
2700 N	18+55.00	57.52	18+62.51	75.65LT.	74.2	
2700 N	18+62.51	75.65	18+62.51	77.66LT.	8.0	TIE TO EXISTING
2700 N	19+15.85	65.79	19+20.75	59.88RT.	29.1	
2700 N	19+18.32	68.25	19+22.86	59.63LT.	37.7	TIE TO EXISTING
2700 N	19+20.75	59.88	19+26.80	55.18RT.	29.1	
2700 N	19+22.86	59.63	19+30.31	53.32LT.	39.8	
2700 N	19+25.75	60.79	19+30.40	65.67RT.	41.2	
2700 N	19+30.31	53.32	19+56.09	52.69LT.	95.8	TIE TO EXISTING
2700 N	19+30.40	65.67	19+32.67	67.40RT.	23.0	
2700 N	19+32.67	67.40	19+35.36	68.32RT.	26.1	TIE TO EXISTING
2700 N	20+69.40	64.04	21+41.53	50.00RT.	266.3	TIE TO EXISTING
2700 N	21+00.00	61.34	21+34.02	50.00LT.	144.3	TIE TO EXISTING
2700 N	21+34.02	50.00	25+57.35	50.00LT.	1,595.1	
2700 N	21+41.53	50.00	25+57.62	50.00RT.	1,660.3	
2700 N	25+57.35	50.00	25+70.20	53.53LT.	50.0	
2700 N	25+57.62	50.00	25+76.24	57.92RT.	76.2	
2700 N	25+70.20	53.53	25+79.47	63.15LT.	50.0	
2700 N	25+76.24	57.92	25+83.33	76.77RT.	76.2	
2700 N	26+49.91	79.66	26+50.11	74.53RT.	20.6	
2700 N	26+50.11	74.53	26+58.01	57.12RT.	72.1	
2700 N	26+50.82	64.03	26+60.13	53.79LT.	51.8	
2700 N	26+58.01	57.12	26+75.83	50.00RT.	72.1	
2700 N	26+60.13	53.79	26+73.40	50.00LT.	51.8	
2700 N	26+73.40	50.00	27+00.00	50.00LT.	107.1	
2700 N	26+75.83	50.00	34+13.23	50.00RT.	2,647.3	
2700 N	27+00.00	50.00	27+37.02	51.97LT.	148.5	TIE TO EXISTING
2700 N	28+92.18	50.45	29+13.27	59.13LT.	85.7	TIE TO EXISTING

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	29+13.27	59.13	29+22.36	80.17LT.	87.1	TIE TO EXISTING
2700 N	29+92.33	79.25	30+01.68	58.49LT.	87.2	TIE TO EXISTING
2700 N	30+01.68	58.49	30+22.80	50.00LT.	87.2	
2700 N	30+22.80	50.00	30+31.28	50.00LT.	33.9	
2700 N	34+08.75	50.33	34+33.72	60.63LT.	104.7	TIE TO EXISTING
2700 N	34+13.23	50.00	34+19.17	45.50RT.	40.3	
2700 N	34+19.17	45.50	34+37.43	49.91RT.	105.2	
2700 N	34+33.72	60.63	34+44.22	85.50LT.	104.5	
2700 N	34+37.43	49.91	34+51.67	62.17RT.	14.7	
2700 N	35+10.22	85.50	35+20.62	60.40LT.	105.2	
2700 N	35+20.62	60.40	35+45.72	50.00LT.	105.2	
2700 N	35+25.62	64.45	35+40.17	50.56RT.	22.3	
2700 N	35+40.17	50.56	35+59.64	45.50RT.	119.4	
2700 N	35+45.72	50.00	41+70.10	50.00LT.	2,339.7	
2700 N	35+59.64	45.50	35+60.45	50.00RT.	3.4	
2700 N	35+60.45	50.00	45+59.64	50.00RT.	3,994.6	
2700 N	41+70.10	50.00	41+87.47	54.54LT.	68.5	
2700 N	41+87.47	54.54	42+00.39	67.00LT.	68.5	
2700 N	42+62.02	64.73	42+67.18	59.01LT.	29.1	
2700 N	42+67.18	59.01	42+73.45	54.54LT.	29.1	
2700 N	42+75.33	58.07	43+16.03	58.34LT.	169.6	TIE TO EXISTING
2700 N	45+43.00	59.73	45+67.50	59.34LT.	108.1	TIE TO EXISTING
2700 N	45+59.64	50.00	45+72.83	53.68RT.	51.1	
2700 N	45+69.72	56.02	45+75.62	60.98LT.	29.1	
2700 N	45+72.83	53.68	45+82.22	63.65RT.	51.1	
2700 N	45+75.62	60.98	45+80.30	67.10LT.	29.1	
2700 N	46+41.25	66.14	46+46.15	60.15LT.	29.3	
2700 N	46+46.15	60.15	46+52.24	55.36LT.	29.3	
2700 N	46+46.87	63.74	46+56.26	53.70RT.	51.3	
2700 N	46+52.24	55.36	46+58.99	52.37LT.	29.4	
2700 N	46+56.26	53.70	46+69.50	50.00RT.	51.3	
2700 N	46+58.99	52.37	46+66.31	51.37LT.	27.4	TIE TO EXISTING
2700 N	46+69.50	50.00	49+10.00	50.00RT.	962.0	
2700 N	48+25.00	51.80	48+35.00	51.85LT.	38.5	TIE TO EXISTING
2700 N	48+35.00	51.85	49+38.62	45.50LT.	696.9	TRANSITION TO TRACKS
2700 N	49+10.00	50.00	49+83.65	45.50RT.	482.0	TRANSITION TO TRACKS

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Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	49+49.78	45.50	50+25.00	50.00LT.	491.5	TRANSITION FROM TRACKS
2700 N	49+94.80	45.50	50+75.00	50.00RT.	503.5	TRANSITION FROM TRACKS
2700 N	50+25.00	50.00	60+52.90	50.00LT.	4,031.6	
2700 N	50+75.00	50.00	62+27.66	50.00RT.	4,406.4	
2700 N	60+52.90	50.00	60+89.94	61.48LT.	152.7	
2700 N	60+89.94	61.48	61+14.00	91.89LT.	152.7	
2700 N	62+27.66	50.00	62+38.67	52.06RT.	42.1	
2700 N	62+38.67	52.06	62+48.19	57.95RT.	42.1	
2700 N	62+93.52	57.95	63+03.04	52.06LT.	42.1	
2700 N	63+03.04	52.06	63+14.05	50.00LT.	42.1	
2700 N	63+14.05	50.00	68+82.58	50.00LT.	2,274.1	
2700 N	64+44.30	76.13	64+57.42	63.05RT.	72.1	
2700 N	64+57.42	63.05	64+68.44	57.23RT.	47.5	
2700 N	64+68.44	57.23	64+80.73	55.09RT.	47.2	
2700 N	64+80.73	55.09	65+40.14	54.13RT.	240.8	
2700 N	65+92.14	55.36	66+20.17	55.06RT.	109.5	
2700 N	66+20.17	55.06	66+59.45	50.00RT.	156.6	
2700 N	66+59.45	50.00	68+89.58	50.00RT.	760.0	
2700 N	68+82.58	50.00	69+00.10	57.17LT.	71.5	
2700 N	68+89.58	50.00	69+04.80	54.07RT.	59.5	
2700 N	69+00.10	57.17	69+07.58	74.56LT.	71.5	TIE TO EXISTING
2700 N	69+04.80	54.07	69+15.96	65.18RT.	59.5	
2700 N	69+74.07	65.18	69+85.23	54.07LT.	59.5	
2700 N	69+82.40	64.88	69+93.53	53.98RT.	58.9	
2700 N	69+85.23	54.07	70+00.44	50.00LT.	59.5	
2700 N	69+93.53	53.98	70+08.59	50.00RT.	58.9	
2700 N	70+00.44	50.00	99+14.31	50.00LT.	11,607.5	
2700 N	70+08.59	50.00	99+43.94	50.00RT.	11,565.8	
2700 N	9+32.72	68.76	9+59.63	54.81LT.	119.2	
2700 N	9+59.63	54.81	9+89.56	50.00LT.	119.2	
2700 N	9+89.56	50.00	12+55.62	50.00LT.	904.2	
2700 N	99+14.31	50.00	99+30.32	54.54LT.	63.0	
2700 N	99+30.32	54.54	99+41.56	66.81LT.	63.0	
2700 N	99+43.94	50.00	99+58.19	53.53RT.	55.4	
2700 N	99+58.19	53.53	99+69.14	63.31RT.	55.4	
HILLSB	2800+58.81	35.92	2800+80.35	26.97LT.	89.6	

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
HILLSB	2800+80.35	26.97	2801+00.39	27.02LT.	87.9	
HILLSB	2801+00.39	27.02	2801+10.00	22.57LT.	59.9	TIE TO EXISTING
SR-89	2015+31.13	59.60	2015+57.85	65.25RT.	106.4	
SR-89	2015+57.85	65.25	2015+78.55	83.05RT.	106.4	
SR-89	2015+78.55	83.05	2015+86.91	99.58RT.	72.1	
					108,821.1	

027760050 Concrete Flatwork 7 inch thick

1,860 sq ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	49+05.87			LT/RT	947.1	
2700 N	50+27.14			LT/RT	905.0	
					1,852.1	

02776006* Detention Pond Spillway

1 Lump

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	148+98.00			RT.	1.0	
					1.0	

Detailed Report

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02777001*	Stamped Colored Concrete				10,660	sq yd
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
LS-10	72+00.00		80+00.00	LT/RT	798.26	
LS-11	80+00.00		88+00.00	LT/RT	784.78	
LS-12	88+00.00		96+00.00	LT/RT	771.68	
LS-13	96+00.00		104+00.00	LT/RT	676.29	
LS-14	104+00.00		112+00.00	LT/RT	799.35	
LS-15	112+00.00		120+00.00	LT/RT	715.78	
LS-16	120+00.00		128+00.00	LT/RT	816.23	
LS-17	128+00.00		136+00.00	LT/RT	703.11	
LS-18	136+00.00		144+00.00	LT/RT	513.96	
LS-19	144+00.00		152+00.00	LT/RT	757.2	
LS-2	8+00.00		16+00.00	LT/RT	138.89	
LS-20	152+00.00		160+00.00	LT/RT	532.16	
LS-21	160+00.00		163+85.00	LT/RT	183.27	
LS-3	16+00.00		24+00.00	LT/RT	293.41	
LS-4	24+00.00		32+00.00	LT/RT	449.68	
LS-5	32+00.00		40+00.00	LT/RT	292.41	
LS-6	40+00.00		48+00.00	LT/RT	47.57	
LS-7	48+00.00		56+00.00	LT/RT	590.64	
LS-8	56+00.00		64+00.00	LT/RT	497.65	
LS-9	64+00.00		72+00.00	LT/RT	292.41	
					10,654.73	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
027860010	Open Graded Surface Course				7,700	Ton
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2108+39.99		2108+78.87	RT.	6.0	PAVEMENT DETAIL B
1000 W	2200+42.32		2200+81.19	LT/RT	9.0	PAVEMENT DETAIL A
1000 W	2200+43.14		2200+81.19	RT.	4.0	PAVEMENT DETAIL B
1500 W	1000+38.58		1002+65.37	LT/RT	25.0	PAVEMENT DETAIL A
1500 W	1100+43.00		1100+85.50	LT/RT	16.0	PAVEMENT DETAIL A
1850 W	400+39.82		401+56.70	LT/RT	29.0	PAVEMENT DETAIL A
1850 W	500+41.97		500+76.88	LT/RT	9.0	PAVEMENT DETAIL A
2700 N	154+30.96		155+46.52	LT.	12.0	PAVEMENT DETAIL B
2700 N	154+67.57		161+00.00	LT.	147.0	PAVEMENT DETAIL E
2700 N	154+67.57		161+00.00	RT.	147.0	PAVEMENT DETAIL B
2700 N	161+00.00		163+58.78	LT/RT	121.0	PAVEMENT DETAIL B
2700 N	21+34.43		26+50.00	LT/RT	240.0	PAVEMENT DETAIL A
2700 N	26+50.00		43+00.00	LT/RT	349.0	PAVEMENT DETAIL C
2700 N	26+50.00		43+00.00	RT.	152.0	PAVEMENT DETAIL A
2700 N	26+50.00		43+00.00	LT.	319.0	PAVEMENT DETAIL A
2700 N	37+71.31		38+14.20	RT.	9.0	PAVEMENT DETAIL A
2700 N	43+00.00		48+50.00	RT.	109.0	PAVEMENT DETAIL A
2700 N	43+00.00		48+50.00	LT/RT	71.0	PAVEMENT DETAIL D
2700 N	43+00.00		48+50.00	LT.	104.0	PAVEMENT DETAIL A
2700 N	48+50.00		49+61.13	LT.	4.0	PAVEMENT DETAIL A
2700 N	48+50.00		49+82.41	RT.	6.0	PAVEMENT DETAIL A
2700 N	49+51.01		51+00.00	LT.	32.0	PAVEMENT DETAIL A
2700 N	49+72.29		51+00.00	RT.	27.0	PAVEMENT DETAIL A
2700 N	51+00.00		62+22.84	LT.	166.0	PAVEMENT DETAIL A
2700 N	51+00.00		62+63.19	RT.	196.0	PAVEMENT DETAIL A
2700 N	51+00.00		64+96.65	LT/RT	250.0	PAVEMENT DETAIL D
2700 N	62+78.69		69+52.70	LT.	62.0	PAVEMENT DETAIL A
2700 N	63+14.88		69+52.70	RT.	62.0	PAVEMENT DETAIL A
2700 N	64+96.65		69+52.70	LT/RT	123.0	PAVEMENT DETAIL C
2700 N	69+52.70		154+67.57	LT/RT	3,967.0	PAVEMENT DETAIL B
2700 N	8+80.00		9+60.00	LT/RT	72.0	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	RT.	165.0	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	LT/RT	202.0	PAVEMENT DETAIL C

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	9+60.00		21+34.43	LT.	203.0	PAVEMENT DETAIL A
600 W	2406+68.80		2407+22.98	LT/RT	16.0	PAVEMENT DETAIL B
600 W	2500+35.55		2500+89.72	LT/RT	16.0	PAVEMENT DETAIL B
HILLSB	2700+41.12		2700+83.87	LT/RT	12.0	PAVEMENT DETAIL B
HILLSB	2800+42.89		2800+84.13	LT/RT	12.0	PAVEMENT DETAIL B
PRKLND	900+41.19		900+89.57	LT/RT	17.0	PAVEMENT DETAIL A
SR-89	2014+97.40		2016+78.05	RT.	40.0	PAVEMENT DETAIL A
SR-89	2016+54.79		2017+16.50	LT.	5.0	PAVEMENT DETAIL A
SR-89	2017+58.77		2018+28.57	RT.	4.0	PAVEMENT DETAIL A
SR-89	2017+78.73		2018+66.06	LT/RT	15.0	PAVEMENT DETAIL D
SR-89	2018+16.44		2019+76.00	LT.	33.0	PAVEMENT DETAIL A
WSATCH	800+39.95		801+79.93	LT/RT	24.0	PAVEMENT DETAIL A
WSATCH	850+40.74		850+78.36	LT/RT	12.0	PAVEMENT DETAIL A
					7,621.0	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
027860020	Asphalt Cement PG 64-34				473	Ton
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2108+39.99		2108+78.87	RT.	0.3	PAVEMENT DETAIL B
1000 W	2200+42.32		2200+81.19	LT/RT	0.5	PAVEMENT DETAIL A
1000 W	2200+43.14		2200+81.19	RT.	0.2	PAVEMENT DETAIL B
1500 W	1000+38.58		1002+65.37	LT/RT	1.6	PAVEMENT DETAIL A
1500 W	1100+43.00		1100+85.50	LT/RT	1.0	PAVEMENT DETAIL A
1850 W	400+39.82		401+56.70	LT/RT	1.8	PAVEMENT DETAIL A
1850 W	500+41.97		500+76.88	LT/RT	0.6	PAVEMENT DETAIL A
2700 N	154+30.96		155+46.52	LT.	0.7	PAVEMENT DETAIL B
2700 N	154+67.57		161+00.00	LT.	9.1	PAVEMENT DETAIL E
2700 N	154+67.57		161+00.00	RT.	9.1	PAVEMENT DETAIL B
2700 N	161+00.00		163+58.78	LT/RT	7.5	PAVEMENT DETAIL B
2700 N	21+34.43		26+50.00	LT/RT	14.9	PAVEMENT DETAIL A
2700 N	26+50.00		43+00.00	LT/RT	21.6	PAVEMENT DETAIL C
2700 N	26+50.00		43+00.00	RT.	9.4	PAVEMENT DETAIL A
2700 N	26+50.00		43+00.00	LT.	19.8	PAVEMENT DETAIL A
2700 N	37+71.31		38+14.20	RT.	0.5	PAVEMENT DETAIL A
2700 N	43+00.00		48+50.00	RT.	6.7	PAVEMENT DETAIL A
2700 N	43+00.00		48+50.00	LT/RT	4.4	PAVEMENT DETAIL D
2700 N	43+00.00		48+50.00	LT.	6.4	PAVEMENT DETAIL A
2700 N	48+50.00		49+61.13	LT.	0.2	PAVEMENT DETAIL A
2700 N	48+50.00		49+82.41	RT.	0.3	PAVEMENT DETAIL A
2700 N	49+51.01		51+00.00	LT.	2.0	PAVEMENT DETAIL A
2700 N	49+72.29		51+00.00	RT.	1.7	PAVEMENT DETAIL A
2700 N	51+00.00		62+22.84	LT.	10.3	PAVEMENT DETAIL A
2700 N	51+00.00		62+63.19	RT.	12.1	PAVEMENT DETAIL A
2700 N	51+00.00		64+96.65	LT/RT	15.5	PAVEMENT DETAIL D
2700 N	62+78.69		69+52.70	LT.	3.8	PAVEMENT DETAIL A
2700 N	63+14.88		69+52.70	RT.	3.9	PAVEMENT DETAIL A
2700 N	64+96.65		69+52.70	LT/RT	7.6	PAVEMENT DETAIL C
2700 N	69+52.70		154+67.57	LT/RT	245.9	PAVEMENT DETAIL B
2700 N	8+80.00		9+60.00	LT/RT	4.5	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	RT.	10.3	PAVEMENT DETAIL A
2700 N	9+60.00		21+34.43	LT/RT	12.5	PAVEMENT DETAIL C

Detailed Report**SP-0134(2)11****Version: 1****2700 NORTH; I-15 TO WASHINGTON**

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	9+60.00		21+34.43	LT.	12.6	PAVEMENT DETAIL A
600 W	2406+68.80		2407+22.98	LT/RT	1.0	PAVEMENT DETAIL B
600 W	2500+35.55		2500+89.72	LT/RT	1.0	PAVEMENT DETAIL B
HILLSB	2700+41.12		2700+83.87	LT/RT	0.7	PAVEMENT DETAIL B
HILLSB	2800+42.89		2800+84.13	LT/RT	0.7	PAVEMENT DETAIL B
PRKLND	900+41.19		900+89.57	LT/RT	1.1	PAVEMENT DETAIL A
SR-89	2014+97.40		2016+78.05	RT.	2.5	PAVEMENT DETAIL A
SR-89	2016+54.79		2017+16.50	LT.	0.3	PAVEMENT DETAIL A
SR-89	2017+58.77		2018+28.57	RT.	0.2	PAVEMENT DETAIL A
SR-89	2017+78.73		2018+66.06	LT/RT	0.9	PAVEMENT DETAIL D
SR-89	2018+16.44		2019+76.00	LT.	2.1	PAVEMENT DETAIL A
WSATCH	800+39.95		801+79.93	LT/RT	1.5	PAVEMENT DETAIL A
WSATCH	850+40.74		850+78.36	LT/RT	0.8	PAVEMENT DETAIL A
					<hr/> 472.1	

02821000P 6 ft Chain Link Fence, Type I

2,080 ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	147+73.98	83.09	147+82.16	55.00RT.	29.3	
2700 N	147+82.16	55.00	151+66.26	55.00RT.	383.1	
2700 N	151+66.23	65.32	151+66.26	55.00RT.	9.3	
2700 N	151+66.26	55.00	154+53.72	55.00RT.	287.4	
2700 N	69+73.01	110.53	69+73.03	101.37LT.	9.16	W/ BARBED WIRE AND ARM
2700 N	69+73.03	101.37	70+18.85	55.00LT.	65.19	W/ BARBED WIRE AND ARM
2700 N	70+18.85	55.00	83+10.76	55.00LT.	1,293.53	W/ BARBED WIRE AND ARM
					<hr/> 2,076.98	

028210018 6 ft Chain Link Fence, Type II

450 ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	138+75.84	55.00	140+00.00	55.00LT.	112.0	
2700 N	140+75.26	177.25	140+84.37	57.00RT.	120.57	
2700 N	140+84.37	57.00	143+02.82	57.00RT.	215.19	
					<hr/> 447.76	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
028210044	Chain Link Brace Post					8	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	140+84.37	57.00		RT.	1.0		
2700 N	147+82.16	55.00		RT.	1.0		
2700 N	151+66.26	55.00		RT.	1.0		
2700 N	154+53.72	55.00		RT.	1.0		
2700 N	69+73.03	101.37		LT.	1.0		
2700 N	70+18.85	55.00		LT.	1.0		
2700 N	74+50.00	55.00		LT.	1.0		
2700 N	78+80.00	55.00		LT.	1.0		
					8.0		
028210084	Chain Link Gate, H= 6 ft X W= 12 ft					4	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	139+13.00	55.00		LT.	1.0	DOUBLE GATE ASSEMBLY	
2700 N	139+37.00	55.00		LT.	1.0	DOUBLE GATE ASSEMBLY	
2700 N	141+13.00	57.00		RT.	1.0	DOUBLE GATE ASSEMBLY	
2700 N	141+47.00	57.00		RT.	1.0	DOUBLE GATE ASSEMBLY	
					4.0		
02822000*	Relocate Fence					760	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	154+53.56	73.31	154+53.72	55.00RT.	18.31		
2700 N	154+53.72	55.58	162+50.03	55.42RT.	704.15		
2700 N	162+50.03	55.42	162+50.22	83.29RT.	27.86		
					750.32		

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
028220030	Right-of-Way Fence, Type D (Metal Post)				9,420	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	100+49.42	99.62	100+72.26	55.00RT.	50.12	
2700 N	100+72.26	55.00	108+66.51	55.00RT.	768.46	
2700 N	100+87.70	75.53	100+96.52	55.00LT.	22.35	
2700 N	100+96.52	55.00	108+49.49	55.00LT.	728.98	
2700 N	108+47.81	67.98	108+49.49	55.00LT.	13.09	
2700 N	108+66.51	55.00	108+68.84	73.25RT.	18.4	
2700 N	108+66.51	55.00	117+08.50	55.00RT.	823.52	
2700 N	117+08.50	55.00	117+09.06	75.00RT.	20.01	
2700 N	22+55.09	55.00	22+61.76	81.99RT.	27.82	
2700 N	22+55.09	55.00	25+57.62	55.00RT.	300.88	
2700 N	2406+02.17	48.35	2406+93.56	48.33LT.	91.4	
2700 N	26+75.83	55.00	31+42.68	55.00RT.	465.19	
2700 N	31+42.68	55.00	31+43.32	69.45RT.	14.47	
2700 N	49+64.79	78.26	49+76.27	55.00LT.	25.94	
2700 N	49+76.27	55.00	58+26.80	55.00LT.	826.53	
2700 N	50+30.46	55.00	50+40.94	76.19RT.	23.64	
2700 N	50+30.46	55.00	55+88.72	55.00RT.	558.26	
2700 N	55+88.72	55.00	55+89.09	75.00RT.	20.0	
2700 N	57+29.68	85.00	57+29.76	55.00RT.	30.0	
2700 N	57+29.76	55.00	61+10.72	55.00RT.	380.96	
2700 N	58+26.80	55.00	59+89.96	299.74LT.	294.14	
2700 N	61+10.72	55.00	61+13.99	85.00RT.	30.18	
2700 N	76+94.47	85.00	76+94.83	55.00RT.	30.0	
2700 N	76+94.83	55.00	79+46.29	55.00RT.	251.46	
2700 N	79+45.34	85.00	79+46.29	55.00RT.	30.02	
2700 N	79+46.29	55.00	83+65.04	55.00RT.	416.77	
2700 N	83+09.66	80.00	83+10.76	55.00LT.	25.03	
2700 N	83+10.76	55.00	86+30.63	55.00LT.	322.05	
2700 N	83+65.04	55.00	83+66.32	77.25RT.	22.28	
2700 N	83+65.04	55.00	86+36.14	55.00RT.	269.26	
2700 N	86+29.55	77.00	86+30.63	55.00LT.	22.03	
2700 N	86+30.63	55.00	92+91.70	55.00LT.	641.56	
2700 N	86+36.14	55.00	86+37.13	80.02RT.	25.03	

Detailed Report**SP-0134(2)11****Version: 1****2700 NORTH; I-15 TO WASHINGTON**

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	86+36.14	55.00	93+10.38	55.00RT.	645.65	
2700 N	92+88.96	78.21	92+91.70	55.00LT.	23.37	
2700 N	93+10.38	55.00	93+14.56	78.25RT.	23.62	
2700 N	93+10.38	55.00	99+44.02	55.00RT.	633.37	
2700 N	99+43.94	55.00	99+57.95	70.81RT.	21.07	
600 W	2403+35.00	38.50	2404+81.39	38.50LT.	146.39	
600 W	2403+35.00	38.50	2406+52.86	38.50RT.	317.86	
600 W	2404+81.28	48.36	2404+81.39	38.50LT.	9.86	
					<hr/>	
					9,411.02	

028220085 Right-of-Way Gate 12 ft

12 Each

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	102+88.00	55.00		LT.	1.0	DOUBLE GATE ASSEMBLY
2700 N	102+88.00	55.00		RT.	1.0	DOUBLE GATE ASSEMBLY
2700 N	103+12.00	55.00		LT.	1.0	DOUBLE GATE ASSEMBLY
2700 N	103+12.00	55.00		RT.	1.0	DOUBLE GATE ASSEMBLY
2700 N	115+00.00	55.00		RT.	1.0	DOUBLE GATE ASSEMBLY
2700 N	115+24.00	55.00		RT.	1.0	DOUBLE GATE ASSEMBLY
2700 N	53+88.00	55.00		LT.	1.0	DOUBLE GATE ASSEMBLY
2700 N	54+12.00	55.00		LT.	1.0	DOUBLE GATE ASSEMBLY
2700 N	55+88.72	55.00		RT.	1.0	
2700 N	89+88.00	55.00		LT.	1.0	DOUBLE GATE ASSEMBLY
2700 N	90+12.00	55.00		LT.	1.0	DOUBLE GATE ASSEMBLY
2700 N	90+53.00	55.00		RT.	1.0	DOUBLE GATE ASSEMBLY
2700 N	90+77.00	55.00		RT.	1.0	DOUBLE GATE ASSEMBLY
600 W	2403+84.50	38.50		LT.	1.0	DOUBLE GATE ASSEMBLY
600 W	2404+09.50	38.50		LT.	1.0	DOUBLE GATE ASSEMBLY
					<hr/>	
					15.0	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number		Description				Use Qty	Unit
028220105		Right-of-Way Brace Post				51	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	100+49.42	99.62		RT.	1.0		
2700 N	100+72.26	55.00		RT.	1.0		
2700 N	100+96.52	55.00		LT.	1.0		
2700 N	102+88.00	55.00		RT.	1.0		
2700 N	102+88.00	55.00		LT.	1.0		
2700 N	103+12.00	55.00		RT.	1.0		
2700 N	103+12.00	55.00		LT.	1.0		
2700 N	105+70.00	55.00		RT.	1.0		
2700 N	105+75.00	55.00		LT.	1.0		
2700 N	108+49.49	55.00		LT.	1.0		
2700 N	108+66.51	55.00		RT.	1.0		
2700 N	112+00.00	55.00		RT.	1.0		
2700 N	115+00.00	55.00		RT.	1.0		
2700 N	115+24.00	55.00		RT.	1.0		
2700 N	117+08.50	55.00		RT.	1.0		
2700 N	22+55.09	55.00		RT.	1.0		
2700 N	25+57.62	55.00		RT.	1.0		
2700 N	26+75.83	55.00		RT.	1.0		
2700 N	31+42.68	55.00		RT.	1.0		
2700 N	49+76.27	55.00		LT.	1.0		
2700 N	50+30.46	55.00		RT.	1.0		
2700 N	53+10.00	55.00		RT.	1.0		
2700 N	53+88.00	55.00		LT.	1.0		
2700 N	54+12.00	55.00		LT.	1.0		
2700 N	55+76.72	55.00		RT.	1.0		
2700 N	55+88.72	55.00		RT.	1.0		
2700 N	57+29.76	55.00		RT.	1.0		
2700 N	58+26.80	55.00		LT.	1.0		
2700 N	59+89.96	299.74		LT.	1.0		
2700 N	61+10.72	55.00		RT.	1.0		
2700 N	76+94.83	55.00		RT.	1.0		
2700 N	79+46.29	55.00		RT.	1.0		
2700 N	83+00.00	55.00		RT.	1.0		

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	83+10.76	55.00		LT.	1.0	
2700 N	83+65.04	55.00		RT.	1.0	
2700 N	86+30.63	55.00		LT.	1.0	
2700 N	86+36.14	55.00		RT.	1.0	
2700 N	89+60.00	55.00		LT.	1.0	
2700 N	89+88.00	55.00		LT.	1.0	
2700 N	90+12.00	55.00		LT.	1.0	
2700 N	90+53.00	55.00		RT.	1.0	
2700 N	90+77.00	55.00		RT.	1.0	
2700 N	92+91.70	55.00		LT.	1.0	
2700 N	93+10.38	55.00		RT.	1.0	
2700 N	96+25.00	55.00		RT.	1.0	
2700 N	99+43.94	55.00		RT.	1.0	
2700 N	99+57.95	70.81		RT.	1.0	
600 W	2403+50.00	38.50		RT.	1.0	
600 W	2403+84.50	38.50		LT.	1.0	
600 W	2404+09.50	38.50		LT.	1.0	
600 W	2404+81.39	38.50		LT.	1.0	
					51.0	

02861005* Precast Noise Wall 13 ft (Specialty Item)

1,810 ft

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	140+00.00	56.00	154+30.96	56.00LT.	1,434.7	
2700 N	143+02.82	56.00	146+50.00	56.00RT.	348.0	
2700 N	154+30.96	56.00	154+51.86	67.72LT.	24.0	
					1,806.7	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02873000*	Construction Work Over Questar HP and IHP Steel Gas Lines					6,510	ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2100+02.00		2109+21.13	RT.	919.13	6" IHP	
1000 W	2200+00.00		2203+52.81	RT.	352.81	6" IHP	
1500 W	1000+40.95		1001+00.00	LT.	59.1	4" HP	
1500 W	1100+06.93		1100+11.00	RT.	4.07	4" HP	
2550 N	2300+29.00		2301+95.61	LT/RT	166.4	10" IHP	
2700 N	35+76.75		57+70.00	LT.	2,193.31	10" IHP	
2700 N	8+80.00		35+76.75	LT.	2,722.36	6" HP AND 6" IHP	
SR-89	2016+13.04		2017+03.68	RT.	90.28	10" IHP	
					6,507.46		

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
028960020	Right-of-Way Markers					181	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	10+00.00	55.00		LT.	1.0	No. 3	
2700 N	100+13.75	106.37		LT.	1.0	No. 102	
2700 N	100+17.66	77.24		LT.	1.0	No. 103	
2700 N	100+42.44	55.00		LT.	1.0	No. 104	
2700 N	100+49.42	99.62		RT.	1.0	No. 105	
2700 N	100+72.26	55.00		RT.	1.0	No. 106	
2700 N	105+00.00	55.00		RT.	1.0	No. 108	
2700 N	105+00.00	55.00		LT.	1.0	No. 107	
2700 N	108+64.72	55.00		LT.	1.0	No. 109	
2700 N	108+64.72	55.00		RT.	1.0	No. 110	
2700 N	110+00.00	55.00		LT.	1.0	No. 111	
2700 N	110+00.00	55.00		RT.	1.0	No. 112	
2700 N	115+00.00	55.00		LT.	1.0	No. 113	
2700 N	115+00.00	55.00		RT.	1.0	No. 114	
2700 N	118+28.33	55.00		RT.	1.0	No. 115	
2700 N	118+30.97	55.00		LT.	1.0	No. 116	
2700 N	118+52.58	79.62		RT.	1.0	No. 117	
2700 N	118+55.98	95.00		LT.	1.0	No. 118	
2700 N	119+18.07	81.69		RT.	1.0	No. 119	
2700 N	119+21.75	94.79		LT.	1.0	No. 120	
2700 N	119+42.30	55.00		RT.	1.0	No. 121	
2700 N	12+55.64	55.00		LT.	1.0	No. 4	
2700 N	12+79.94	77.01		LT.	1.0	No. 5	
2700 N	120+22.59	59.11		LT.	1.0	No. 122	
2700 N	120+46.82	55.00		RT.	1.0	No. 124	
2700 N	120+46.82	59.31		LT.	1.0	No. 123	
2700 N	125+00.00	55.00		RT.	1.0	No. 126	
2700 N	125+00.00	60.97		LT.	1.0	No. 125	
2700 N	13+39.96	77.04		LT.	1.0	No. 6	
2700 N	13+47.14	90.47		RT.	1.0	No. 7	
2700 N	13+54.73	55.00		LT.	1.0	No. 8	
2700 N	13+77.53	55.00		RT.	1.0	No. 9	
2700 N	130+00.00	55.00		RT.	1.0	No. 128	

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	130+00.00	59.96		LT.	1.0	No. 127
2700 N	130+60.37	55.00		RT.	1.0	No. 130
2700 N	130+60.37	60.13		LT.	1.0	No. 129
2700 N	135+00.00	55.00		LT.	1.0	No. 131
2700 N	135+00.00	55.00		RT.	1.0	No. 132
2700 N	136+11.26	55.00		RT.	1.0	No. 134
2700 N	136+11.26	55.00		LT.	1.0	No. 133
2700 N	136+73.76	55.00		RT.	1.0	No. 135
2700 N	138+11.26	55.00		LT.	1.0	No. 136
2700 N	138+11.26	55.00		RT.	1.0	No. 137
2700 N	139+47.97	55.00		RT.	1.0	No. 138
2700 N	139+47.97	57.00		RT.	1.0	No. 139
2700 N	14+28.02	55.00		LT.	1.0	No. 9A
2700 N	140+00.05	55.00		LT.	1.0	No. 141
2700 N	140+00.05	57.00		LT.	1.0	No. 140
2700 N	143+20.74	57.00		RT.	1.0	No. 143
2700 N	143+20.74	57.00		LT.	1.0	No. 142
2700 N	144+93.19	57.00		RT.	1.0	No. 145
2700 N	144+93.19	57.00		LT.	1.0	No. 144
2700 N	147+01.99	55.00		RT.	1.0	No. 146
2700 N	147+02.00	57.00		RT.	1.0	No. 147
2700 N	148+98.00	55.00		RT.	1.0	No. 149 Do Not Set
2700 N	148+98.00	57.00		LT.	1.0	No. 148
2700 N	15+00.00	55.00		RT.	1.0	No. 11
2700 N	15+15.00	57.25		LT.	1.0	No. 10
2700 N	150+00.00	55.00		RT.	1.0	No. 151
2700 N	150+00.00	57.00		LT.	1.0	No. 150
2700 N	151+74.58	55.00		RT.	1.0	No. 153
2700 N	151+74.58	57.00		LT.	1.0	No. 152
2700 N	154+27.95	57.00		LT.	1.0	No. 154
2700 N	154+53.07	55.00		RT.	1.0	No. 155A
2700 N	154+55.63	55.63		RT.	1.0	No. 155B
2700 N	154+56.55	73.66		LT.	1.0	No. 155
2700 N	155+00.00	55.57		RT.	1.0	No. 156
2700 N	155+17.42	73.69		LT.	1.0	No. 157
2700 N	155+31.44	54.45		LT.	1.0	No. 158

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	160+62.45	54.69		LT.	1.0	No. 159
2700 N	160+62.45	55.31		RT.	1.0	No. 160
2700 N	162+63.49	54.58		LT.	1.0	No. 161
2700 N	162+63.49	55.42		RT.	1.0	No. 162
2700 N	163+66.12	54.64		LT.	1.0	No. 163
2700 N	163+66.22	55.37		RT.	1.0	No. 164
2700 N	17+23.14	55.00		LT.	1.0	No. 11B
2700 N	17+23.14	59.93		LT.	1.0	No. 11A
2700 N	18+25.64	58.02		RT.	1.0	No. 12
2700 N	18+26.27	55.00		LT.	1.0	No. 11C
2700 N	18+26.37	62.24		LT.	1.0	No. 11D
2700 N	18+41.88	62.03		LT.	1.0	No. 13
2700 N	18+57.56	85.00		LT.	1.0	No. 14
2700 N	18+61.42	87.00		RT.	1.0	No. 15
2700 N	19+06.02	86.95		RT.	1.0	No. 16
2700 N	19+18.18	85.00		LT.	1.0	No. 17
2700 N	19+36.73	62.60		LT.	1.0	No. 18
2700 N	19+43.06	56.66		RT.	1.0	No. 19
2700 N	20+00.00	55.21		RT.	1.0	No. 21
2700 N	20+00.00	65.02		LT.	1.0	No. 20
2700 N	21+26.04	74.72		LT.	1.0	No. 21A
2700 N	21+33.58	46.89		LT.	1.0	No. 21B
2700 N	21+72.47	55.00		LT.	1.0	No. 21D
2700 N	21+73.76	50.00		LT.	1.0	No. 21C
2700 N	22+12.92	71.76		LT.	1.0	No. 21F
2700 N	22+17.71	55.00		LT.	1.0	No. 21E
2700 N	22+85.35	55.00		RT.	1.0	No. 23
2700 N	22+85.35	66.01		LT.	1.0	No. 22
2700 N	24+30.16	55.00		LT.	1.0	No. 23A
2700 N	25+00.00	55.00		RT.	1.0	No. 25
2700 N	25+00.00	55.00		LT.	1.0	No. 24
2700 N	25+57.35	55.00		LT.	1.0	No. 26
2700 N	25+87.54	83.75		LT.	1.0	No. 27
2700 N	26+32.14	83.75		LT.	1.0	No. 28
2700 N	26+61.49	55.00		LT.	1.0	No. 29
2700 N	27+34.18	55.00		LT.	1.0	No. 29A

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	27+34.24	56.79		LT.	1.0	No. 29B
2700 N	28+92.37	55.00		LT.	1.0	No. 30
2700 N	29+17.58	89.52		LT.	1.0	No. 31
2700 N	29+19.90	55.00		RT.	1.0	No. 32
2700 N	29+97.58	89.75		LT.	1.0	No. 33
2700 N	30+00.00	55.00		RT.	1.0	No. 34
2700 N	30+22.80	55.00		LT.	1.0	No. 35
2700 N	34+19.17	55.00		RT.	1.0	No. 36
2700 N	34+49.32	83.68		RT.	1.0	No. 37
2700 N	35+29.20	83.43		RT.	1.0	No. 38
2700 N	35+48.65	65.41		RT.	1.0	No. 39
2700 N	35+86.03	55.00		LT.	1.0	No. 40
2700 N	35+86.03	62.53		RT.	1.0	No. 41
2700 N	38+67.81	55.00		RT.	1.0	No. 41A
2700 N	40+00.00	55.00		RT.	1.0	No. 43
2700 N	40+00.00	55.00		LT.	1.0	No. 42
2700 N	41+70.10	55.00		LT.	1.0	No. 44
2700 N	42+09.96	89.76		LT.	1.0	No. 45
2700 N	42+50.44	89.86		LT.	1.0	No. 46
2700 N	42+90.81	55.00		LT.	1.0	No. 47
2700 N	45+00.00	55.00		LT.	1.0	No. 48
2700 N	45+00.00	55.00		RT.	1.0	No. 49
2700 N	45+49.57	55.00		LT.	1.0	No. 50
2700 N	45+59.64	55.00		RT.	1.0	No. 51
2700 N	45+80.04	85.00		RT.	1.0	No. 52
2700 N	45+90.06	85.00		LT.	1.0	No. 53
2700 N	46+31.01	85.00		LT.	1.0	No. 54
2700 N	46+50.04	85.00		RT.	1.0	No. 55
2700 N	46+69.50	55.00		RT.	1.0	No. 57
2700 N	46+71.00	55.00		LT.	1.0	No. 56
2700 N	50+00.00	55.00		LT.	1.0	No. 58
2700 N	50+30.46	55.00		RT.	1.0	No. 59
2700 N	55+00.00	55.00		RT.	1.0	No. 61
2700 N	55+00.00	55.00		LT.	1.0	No. 60
2700 N	58+25.60	55.00		LT.	1.0	No. 62
2700 N	59+89.13	300.29		LT.	1.0	No. 64

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	60+00.00	55.00		RT.	1.0	No. 63
2700 N	61+80.65	55.00		RT.	1.0	No. 65
2700 N	62+31.85	55.00		RT.	1.0	No. 66
2700 N	62+93.56	74.08		LT.	1.0	No. 67
2700 N	63+30.82	55.00		LT.	1.0	No. 68
2700 N	64+37.69	121.37		RT.	1.0	No. 69
2700 N	64+42.99	144.34		RT.	1.0	No. 70
2700 N	64+46.79	141.74		RT.	1.0	No. 71
2700 N	64+74.56	59.13		RT.	1.0	No. 72
2700 N	64+96.65	55.00		RT.	1.0	No. 73
2700 N	65+00.00	55.00		LT.	1.0	No. 74
2700 N	68+74.22	55.00		LT.	1.0	No. 75
2700 N	68+84.45	55.00		RT.	1.0	No. 76
2700 N	69+07.26	80.00		RT.	1.0	No. 77
2700 N	69+10.21	90.62		LT.	1.0	No. 78
2700 N	69+75.73	98.64		LT.	1.0	No. 79
2700 N	69+79.42	80.73		RT.	1.0	No. 80
2700 N	70+05.43	55.00		RT.	1.0	No. 81
2700 N	70+18.85	55.00		LT.	1.0	No. 82
2700 N	75+00.00	55.00		RT.	1.0	No. 84
2700 N	75+00.00	55.00		LT.	1.0	No. 83
2700 N	80+00.00	55.00		RT.	1.0	No. 86
2700 N	80+00.00	55.00		LT.	1.0	No. 85
2700 N	80+73.04	55.00		RT.	1.0	No. 88
2700 N	80+73.04	55.00		LT.	1.0	No. 87
2700 N	85+00.00	55.00		RT.	1.0	No. 90
2700 N	85+00.00	55.00		LT.	1.0	No. 89
2700 N	89+00.00	55.00		LT.	1.0	No. 91
2700 N	9+72.26	56.67		LT.	1.0	No. 1
2700 N	9+89.56	55.00		LT.	1.0	No. 2
2700 N	90+00.00	55.00		RT.	1.0	No. 92
2700 N	93+38.17	55.00		RT.	1.0	No. 94
2700 N	93+38.17	55.00		LT.	1.0	No. 93
2700 N	95+00.00	55.00		RT.	1.0	No. 96
2700 N	95+00.00	55.00		LT.	1.0	No. 95
2700 N	99+19.82	55.00		LT.	1.0	No. 97

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	99+34.52	104.28		LT.	1.0	No. 98
2700 N	99+44.02	55.00		RT.	1.0	No. 99
2700 N	99+57.95	70.81		RT.	1.0	No. 100
2700 N	99+63.35	111.15		RT.	1.0	No. 101
					<hr/> 181.0	

029610030 Rotomilling - 2 Inch

7,230 sq yd

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	155+00.00		161+00.00	LT.	788.0	
2700 N	43+00.00		48+50.00	LT/RT	1,604.0	
2700 N	51+00.00		64+96.65	LT/RT	4,835.0	
					<hr/> 7,227.0	

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2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number		Description				Use Qty	Unit
03310001*		Catch Basin				181	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2100+27.13	26.47		RT.	1.0	CB#132	
1000 W	2100+30.13	104.87		RT.	1.0	CB#133	
1000 W	2101+15.25	26.06		RT.	1.0	CB#134	
1000 W	2103+20.00	22.70		RT.	1.0	CB#135	
1000 W	2108+10.00	17.00		LT.	1.0	CB#136L	
1000 W	2108+10.00	29.00		RT.	1.0	CB#136R	
2700 N	100+60.00	44.00		LT.	1.0	CB#94	
2700 N	100+77.00	44.00		RT.	1.0	CB#95	
2700 N	102+70.00	44.00		RT.	1.0	CB#96R	
2700 N	102+70.00	44.00		LT.	1.0	CB#96L	
2700 N	105+20.00	44.00		LT.	1.0	CB#97L	
2700 N	105+20.00	44.00		RT.	1.0	CB#97R	
2700 N	107+70.00	44.00		RT.	1.0	CB#98R	
2700 N	107+70.00	44.00		LT.	1.0	CB#98L	
2700 N	11+66.00	44.00		LT.	1.0	CB#5	
2700 N	11+72.00	44.00		RT.	1.0	CB#6	
2700 N	110+70.00	44.00		RT.	1.0	CB#99R	
2700 N	110+70.00	44.00		LT.	1.0	CB#99L	
2700 N	113+20.00	44.00		LT.	1.0	CB#100L	
2700 N	113+20.00	44.00		RT.	1.0	CB#100R	
2700 N	115+70.00	44.00		LT.	1.0	CB#101L	
2700 N	115+70.00	44.00		RT.	1.0	CB#101R	
2700 N	118+27.00	44.00		LT.	1.0	CB#102L	
2700 N	118+27.00	44.00		RT.	1.0	CB#102R	
2700 N	118+64.61	83.10		RT.	1.0	CB#103	
2700 N	118+68.00	80.28		LT.	1.0	CB#103A	
2700 N	119+06.16	80.14		RT.	1.0	CB#104	
2700 N	119+09.99	80.26		LT.	1.0	CB#104A	
2700 N	119+50.00	44.00		LT.	1.0	CB#106L	
2700 N	119+50.00	44.00		RT.	1.0	CB#106R	
2700 N	12+08.00	44.00		LT.	1.0	CB#7	
2700 N	12+57.78	94.00		RT.	1.0	CB#8	
2700 N	12+70.00	47.00		LT.	1.0	CB#9	

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	12+80.21	104.77		RT.	1.0	CB#10
2700 N	121+46.00	44.00		LT.	1.0	CB#107L
2700 N	121+46.00	44.00		RT.	1.0	CB#107R
2700 N	123+40.00	44.00		RT.	1.0	CB#108R
2700 N	123+40.00	44.00		LT.	1.0	CB#108L
2700 N	125+32.00	44.00		LT.	1.0	CB#109L
2700 N	125+32.00	44.00		RT.	1.0	CB#109R
2700 N	127+88.00	44.00		RT.	1.0	CB#110R
2700 N	127+88.00	44.00		LT.	1.0	CB#110L
2700 N	13+41.75	89.07		RT.	1.0	CB#11
2700 N	130+72.00	44.00		LT.	1.0	CB#111L
2700 N	130+72.00	44.00		RT.	1.0	CB#111R
2700 N	133+77.00	44.00		LT	1.0	CB#112L
2700 N	133+77.00	44.00		RT.	1.0	CB#112R
2700 N	135+55.63	44.83		LT.	1.0	CB#113
2700 N	135+61.00	44.00		RT.	1.0	CB#114
2700 N	136+78.00	44.00		RT.	1.0	CB#115R
2700 N	136+78.00	44.00		LT.	1.0	CB#115L
2700 N	138+90.00	44.00		RT.	1.0	CB#116R
2700 N	138+90.00	44.00		LT.	1.0	CB#116L
2700 N	141+00.00	44.00		RT.	1.0	CB#117R
2700 N	141+00.00	44.00		LT.	1.0	CB#117L
2700 N	141+00.00	60.00		LT.	1.0	CB#117L2
2700 N	143+03.00	44.00		LT.	1.0	CB#118L
2700 N	143+03.00	44.00		RT.	1.0	CB#118R
2700 N	143+03.00	60.00		LT.	1.0	CB#118L2
2700 N	145+60.00	44.00		LT.	1.0	CB#119L
2700 N	145+60.00	44.00		RT.	1.0	CB#119R
2700 N	145+60.00	60.00		LT.	1.0	CB#119L2
2700 N	145+60.00	64.00		RT.	1.0	CB#119R2
2700 N	148+31.00	44.00		RT.	1.0	CB#120R
2700 N	148+31.00	44.00		LT.	1.0	CB#120L
2700 N	148+31.00	60.00		LT.	1.0	CB#120L2
2700 N	151+29.00	44.00		LT.	1.0	CB#121L
2700 N	151+29.00	44.00		RT.	1.0	CB#121R
2700 N	152+97.63	66.65		LT.	1.0	CB#121A

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	153+30.00	44.00		RT.	1.0	CB#122R
2700 N	153+30.00	44.00		LT.	1.0	CB#122L
2700 N	153+36.33	66.65		LT.	1.0	CB#122A
2700 N	155+08.00	44.00		RT.	1.0	CB#124
2700 N	158+37.00	44.00		RT.	1.0	CB#127
2700 N	16+06.00	44.00		LT.	1.0	CB#15
2700 N	161+50.00	44.00		RT.	1.0	CB#128
2700 N	18+34.00	44.00		LT.	1.0	CB#17
2700 N	18+37.28	46.85		RT.	1.0	CB#18
2700 N	19+45.00	44.00		LT.	1.0	CB#22
2700 N	21+28.00	44.00		LT.	1.0	CB#23
2700 N	22+20.00	44.00		RT.	1.0	CB#25
2700 N	24+60.00	44.00		LT.	1.0	CB#26
2700 N	24+86.00	44.00		RT.	1.0	CB#26A
2700 N	25+57.00	44.00		LT.	1.0	CB#27
2700 N	25+84.28	59.26		LT.	1.0	CB#27A
2700 N	25+89.75	75.00		RT.	1.0	CB#27B
2700 N	26+42.32	78.56		LT.	1.0	CB#28
2700 N	26+43.90	77.25		RT.	1.0	CB#28A
2700 N	27+23.00	44.00		RT.	1.0	CB#29R
2700 N	27+23.00	44.00		LT.	1.0	CB#29L
2700 N	30+34.00	44.00		RT.	1.0	CB#31
2700 N	32+15.00	44.00		RT.	1.0	CB#33
2700 N	34+11.00	44.00		RT.	1.0	CB#34
2700 N	34+50.22	83.50		LT.	1.0	CB#35
2700 N	34+60.39	80.65		RT.	1.0	CB#36
2700 N	35+04.22	83.50		LT.	1.0	CB#36A
2700 N	35+18.76	77.55		RT.	1.0	CB#37
2700 N	35+48.00	44.00		LT.	1.0	CB#37A
2700 N	35+63.00	44.00		RT.	1.0	CB#38
2700 N	38+76.00	44.00		RT.	1.0	CB#39
2700 N	38+78.72	44.00		LT.	1.0	CB#41
2700 N	41+67.00	44.00		RT.	1.0	CB#42R
2700 N	41+67.00	44.00		LT.	1.0	CB#42L
2700 N	42+10.66	76.02		LT.	1.0	CB#43
2700 N	42+49.89	77.89		LT.	1.0	CB#44

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	43+50.00	44.00		RT.	1.0	CB#46
2700 N	45+57.54	44.00		RT.	1.0	CB#47
2700 N	45+90.50	76.56		LT.	1.0	CB#49
2700 N	45+91.15	80.00		RT.	1.0	CB#48
2700 N	46+30.20	77.06		LT.	1.0	CB#50
2700 N	46+38.00	80.00		RT.	1.0	CB#51
2700 N	46+72.00	44.00		RT.	1.0	CB#52
2700 N	49+04.00	0.50		LT.	1.0	CB#54L
2700 N	49+04.00	44.00		RT.	1.0	CB#54R
2700 N	49+81.00	44.00		LT.	1.0	CB#55
2700 N	50+10.00	0.50		RT.	1.0	CB#56
2700 N	50+50.00	44.00		LT.	1.0	CB#57
2700 N	50+86.00	44.00		RT.	1.0	CB#58
2700 N	53+05.00	44.00		RT.	1.0	CB#59R
2700 N	53+05.00	44.00		LT.	1.0	CB#59L
2700 N	55+50.00	44.00		RT.	1.0	CB#60R
2700 N	55+50.00	44.00		LT.	1.0	CB#60L
2700 N	57+84.00	44.00		RT.	1.0	CB#61R
2700 N	57+84.00	44.00		LT.	1.0	CB#61L
2700 N	60+00.00	44.00		RT.	1.0	CB#62
2700 N	61+20.42	92.42		LT.	1.0	CB#63
2700 N	61+38.00	60.00		LT.	1.0	CB#65
2700 N	62+30.00	44.00		RT.	1.0	CB#66
2700 N	62+59.01	61.59		RT.	1.0	CB#67
2700 N	63+23.00	44.00		LT.	1.0	CB#68
2700 N	63+70.00	44.00		RT.	1.0	CB#69
2700 N	63+88.61	72.80		RT.	1.0	CB#70
2700 N	64+24.00	44.00		LT.	1.0	CB#71A
2700 N	64+24.00	59.00		LT.	1.0	CB#71B
2700 N	64+25.15	113.09		RT.	1.0	72
2700 N	64+37.90	75.38		RT.	1.0	73
2700 N	66+42.00	44.00		RT.	1.0	CB#74R
2700 N	66+42.00	44.00		LT.	1.0	CB#74L
2700 N	68+87.00	44.00		LT.	1.0	CB#75
2700 N	68+89.00	44.00		RT.	1.0	CB#76
2700 N	69+25.55	72.57		RT.	1.0	CB#77

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Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	69+66.47	66.87		LT.	1.0	CB#78
2700 N	70+16.00	44.00		RT.	1.0	CB#80R
2700 N	70+16.00	44.00		LT.	1.0	CB#80L
2700 N	72+22.00	44.00		RT.	1.0	CB#81R
2700 N	72+22.00	44.00		LT.	1.0	CB#81L
2700 N	74+65.00	44.00		RT.	1.0	CB#82R
2700 N	74+65.00	44.00		LT.	1.0	CB#82L
2700 N	77+00.00	44.00		RT.	1.0	CB#83R
2700 N	77+00.00	44.00		LT.	1.0	CB#83L
2700 N	79+39.00	44.00		RT.	1.0	CB#84R
2700 N	79+39.00	44.00		LT.	1.0	CB#84L
2700 N	81+60.00	44.00		RT.	1.0	CB#85R
2700 N	81+60.00	44.00		LT.	1.0	CB#85L
2700 N	83+90.00	44.00		RT.	1.0	CB#86R
2700 N	83+90.00	44.00		LT.	1.0	CB#86L
2700 N	86+20.00	44.00		RT.	1.0	CB#87R
2700 N	86+20.00	44.00		LT.	1.0	CB#87L
2700 N	89+20.00	44.00		RT.	1.0	CB#88R
2700 N	89+20.00	44.00		LT.	1.0	CB#88L
2700 N	9+30.00	63.08		LT.	1.0	CB#1
2700 N	9+32.00	64.71		RT.	1.0	CB#3
2700 N	91+80.00	44.00		RT.	1.0	CB#89R
2700 N	91+80.00	44.00		LT.	1.0	CB#89L
2700 N	94+35.00	44.00		RT.	1.0	CB#90R
2700 N	94+35.00	44.00		LT.	1.0	CB#90L
2700 N	96+90.00	44.00		RT.	1.0	CB#91R
2700 N	96+90.00	44.00		LT.	1.0	CB#91L
2700 N	99+31.05	47.71		LT.	1.0	CB#92
2700 N	99+41.00	44.00		RT.	1.0	CB#93
600 W	2404+50.00	27.00		RT.	1.0	CB#139R
600 W	2404+50.00	27.00		LT.	1.0	CB#139L
600 W	2406+41.00	27.00		RT.	1.0	CB#140R
600 W	2406+41.00	27.00		LT.	1.0	CB#140L
600 W	2406+85.00	27.00		LT.	1.0	CB#141
600 W	2500+90.00	27.00		LT.	1.0	CB#141A
600 W	2501+50.00	27.00		RT.	1.0	CB#142R

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
600 W	2501+50.00	27.00		LT.	1.0	CB#142L
SR-89	2005+64.91	54.24		RT.	1.0	CB#129
SR-89	2018+52.57	49.94		RT.	1.0	CB#130
SR-89	2019+77.13	43.85		RT.	1.0	CB#131
					<hr/> 181.0	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
03310002*	Cleanout Box				52	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2106+57.00	38.00		RT.	1.0	COB#542
2700 N	11+73.07	57.39		RT.	1.0	COB#501
2700 N	119+16.10	44.00		RT.	1.0	COB#538A
2700 N	147+82.13	74.74		RT.	1.0	COB#539
2700 N	151+50.00	47.75		RT.	1.0	COB#540
2700 N	153+31.18	66.65		LT.	1.0	COB#540A
2700 N	21+00.33	48.86		LT.	1.0	COB#502
2700 N	21+43.38	56.34		RT.	1.0	COB#503
2700 N	21+86.00	59.00		LT.	1.0	COB#505
2700 N	22+20.00	50.00		RT.	1.0	COB#506
2700 N	22+43.25	56.56		RT.	1.0	COB#507
2700 N	24+86.00	50.00		RT.	1.0	COB#508
2700 N	25+57.00	38.11		LT.	1.0	COB#508A
2700 N	25+67.00	50.00		RT.	1.0	COB#508B
2700 N	27+23.00	33.00		LT.	1.0	COB#509L
2700 N	27+23.00	50.00		RT.	1.0	COB#509R
2700 N	30+34.00	50.00		RT.	1.0	COB#510
2700 N	32+15.00	50.00		RT.	1.0	COB#511
2700 N	34+11.00	50.00		RT.	1.0	COB#512
2700 N	34+50.00	30.00		LT.	1.0	COB#513
2700 N	35+48.00	31.00		LT.	1.0	COB#513A
2700 N	35+63.00	50.00		RT.	1.0	COB#514
2700 N	38+76.00	50.00		RT.	1.0	COB#515
2700 N	41+67.00	50.00		RT.	1.0	COB#516
2700 N	41+67.33	37.27		LT.	1.0	COB#517
2700 N	43+50.00	50.00		RT.	1.0	COB#518
2700 N	45+57.54	50.00		RT.	1.0	COB#519
2700 N	46+72.00	50.00		RT.	1.0	COB#520
2700 N	49+04.00	50.00		RT.	1.0	COB#521
2700 N	50+86.00	50.00		RT.	1.0	COB#523
2700 N	53+05.00	34.00		LT.	1.0	COB#524L
2700 N	53+05.00	50.00		RT.	1.0	COB#524R
2700 N	55+50.00	34.00		LT.	1.0	COB#525L

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	55+50.00	50.00		RT.	1.0	COB#525R
2700 N	57+84.00	34.00		LT.	1.0	COB#526L
2700 N	57+84.00	50.00		RT.	1.0	COB#526R
2700 N	60+00.00	50.00		RT.	1.0	COB#527
2700 N	62+30.00	50.00		RT.	1.0	COB#528
2700 N	63+23.00	57.00		LT.	1.0	COB#529
2700 N	66+42.00	57.00		LT.	1.0	COB#530
2700 N	68+87.00	56.00		LT.	1.0	COB#531
2700 N	69+81.90	89.11		RT.	1.0	COB#532
2700 N	70+10.00	63.00		RT.	1.0	COB#533
2700 N	73+21.00	63.00		RT.	1.0	COB#534
2700 N	76+00.00	47.75		LT.	1.0	COB#535L
2700 N	76+00.00	63.00		RT.	1.0	COB#535R
2700 N	78+92.00	47.75		LT.	1.0	COB#536
2700 N	81+05.00	47.75		LT.	1.0	COB#537
2700 N	83+05.00	48.00		LT.	1.0	COB#538
2700 N	9+10.46	26.37		LT.	1.0	COB#500
2700 N	9+78.36	57.71		LT.	1.0	COB#500A
SR-89	2015+26.12	19.37		RT.	1.0	COB#541

52.0

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

10 - ROADWAY

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
03310004*	Standard Diversion Box					12	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	158+58.00	66.48		RT.	1.0	DB#2008	
2700 N	159+50.00	66.94		RT.	1.0	DB#2009	
2700 N	160+00.00	67.26		RT.	1.0	DB#2010	
2700 N	160+60.00	69.17		RT.	1.0	DB#2011	
2700 N	161+60.00	73.60		RT.	1.0	DB#2012	
2700 N	162+44.88	58.91		RT.	1.0	DB#2013	
2700 N	79+28.00	63.00		RT.	1.0	DB#2002	
2700 N	81+48.00	64.00		RT.	1.0	DB#2003	
2700 N	83+60.00	62.00		RT.	1.0	DB#2004	
2700 N	85+80.00	62.00		LT.	1.0	DB#2005	
2700 N	86+34.00	62.00		RT.	1.0	DB#2006	
2700 N	87+92.00	62.00		RT.	1.0	DB#2007	
					12.0		
03310006*	Irrigation Overflow Box					1	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	87+92.00	62.00		LT.	1.0		
					1.0		
03310007*	Outlet Structure					1	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	148+31.00	107.00		RT.	1.0		
					1.0		

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

30 - LANDSCAPING

Alt Group: 0 Alt #: 0

Item Number		Description				Use Qty	Unit
01571003P		Silt Fence				250	yd
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
LS-10	72+00.00		80+00.00	LT/RT	51.94		
LS-11	80+00.00		88+00.00	LT/RT	44.42		
LS-12	88+00.00		96+00.00	LT/RT	42.25		
LS-13	96+00.00		104+00.00	LT/RT	62.98		
LS-15	112+00.00		120+00.00	LT/RT	12.6		
LS-26	2100+00.00		2106+00.00	LT/RT	20.75		
LS-9	64+00.00		72+00.00	LT/RT	5.76		
					240.7		

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

30 - LANDSCAPING

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
029110010	Cellulose Fiber Mulch				12	Acre
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
LS-10	72+00.00		80+00.00	LT/RT	0.614	
LS-11	80+00.00		88+00.00	LT/RT	0.657	
LS-12	88+00.00		96+00.00	LT/RT	0.368	
LS-13	96+00.00		104+00.00	LT/RT	0.561	
LS-14	104+00.00		112+00.00	LT/RT	0.234	
LS-15	112+00.00		120+00.00	LT/RT	0.27	
LS-16	120+00.00		128+00.00	LT/RT	0.13	
LS-17	128+00.00		136+00.00	LT/RT	0.051	
LS-18	136+00.00		144+00.00	LT/RT	0.119	
LS-19	144+00.00		152+00.00	LT/RT	0.257	
LS-2	8+00.00		16+00.00	LT/RT	0.306	
LS-20	152+00.00		160+00.00	LT/RT	0.191	
LS-21	160+00.00		163+85.00	LT/RT	0.082	
LS-23	1999+70.00		2008+00.00	RT.	0.096	
LS-24	2008+00.00		2016+00.00	RT.	0.065	
LS-25	2016+00.00		2024+30.00	LT/RT	0.131	
LS-26	2100+00.00		2106+00.00	LT/RT	0.276	
LS-27	2106+00.00		2203+60.00	LT/RT	0.008	
LS-28	2403+35.00		2405+00.00	LT/RT	0.045	
LS-29	2405+00.00		2505+60.00	LT/RT	0.088	
LS-3	16+00.00		24+00.00	LT/RT	0.154	
LS-31					5.868	BARKER POND
LS-4	24+00.00		32+00.00	LT/RT	0.167	
LS-5	32+00.00		40+00.00	LT/RT	0.041	
LS-6	40+00.00		48+00.00	LT/RT	0.016	
LS-7	48+00.00		56+00.00	LT/RT	0.465	
LS-8	56+00.00		64+00.00	LT/RT	0.223	
LS-9	64+00.00		72+00.00	LT/RT	0.21	
					11.693	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

30 - LANDSCAPING

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02912003P	Strip and Stockpile Topsoil				12	cu yd
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
LS-10	72+00.00		80+00.00	LT/RT	330.08	
LS-11	80+00.00		88+00.00	LT/RT	353.46	
LS-12	88+00.00		96+00.00	LT/RT	197.7	
LS-13	96+00.00		104+00.00	LT/RT	301.94	
LS-14	104+00.00		112+00.00	LT/RT	125.72	
LS-15	112+00.00		120+00.00	LT/RT	154.73	
LS-16	120+00.00		128+00.00	LT/RT	118.14	
LS-17	128+00.00		136+00.00	LT/RT	70.11	
LS-18	136+00.00		144+00.00	LT/RT	64.17	
LS-19	144+00.00		152+00.00	LT/RT	152.64	
LS-2	8+00.00		16+00.00	LT/RT	203.48	
LS-20	152+00.00		160+00.00	LT/RT	112.94	
LS-21	160+00.00		163+85.00	LT/RT	57.35	
LS-23	1999+70.00		2008+00.00	RT.	51.73	
LS-24	2008+00.00		2016+00.00	RT.	35.12	
LS-25	2016+00.00		2024+30.00	LT/RT	70.46	
LS-26	2100+00.00		2106+00.00	LT/RT	148.45	
LS-27	2106+00.00		2203+60.00	LT/RT	4.21	
LS-28	2403+35.00		2405+00.00	LT/RT	24.16	
LS-29	2405+00.00		2505+60.00	LT/RT	47.12	
LS-3	16+00.00		24+00.00	LT/RT	223.8	
LS-31					3,155.73	BARKER POND
LS-4	24+00.00		32+00.00	LT/RT	145.13	
LS-5	32+00.00		40+00.00	LT/RT	289.31	
LS-6	40+00.00		48+00.00	LT/RT	176.89	
LS-7	48+00.00		56+00.00	LT/RT	252.29	
LS-8	56+00.00		64+00.00	LT/RT	195.93	
LS-9	64+00.00		72+00.00	LT/RT	161.07	
					7,223.86	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

30 - LANDSCAPING

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
029120040	Spread Stockpiled Topsoil				65,100	sq yd
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
LS-10	72+00.00		80+00.00	LT/RT	2,970.7	
LS-11	80+00.00		88+00.00	LT/RT	3,181.17	
LS-12	88+00.00		96+00.00	LT/RT	1,779.28	
LS-13	96+00.00		104+00.00	LT/RT	2,717.44	
LS-14	104+00.00		112+00.00	LT/RT	1,131.45	
LS-15	112+00.00		120+00.00	LT/RT	1,392.56	
LS-16	120+00.00		128+00.00	LT/RT	1,063.29	
LS-17	128+00.00		136+00.00	LT/RT	631.02	
LS-18	136+00.00		144+00.00	LT/RT	577.56	
LS-19	144+00.00		152+00.00	LT/RT	1,373.73	
LS-2	8+00.00		16+00.00	LT/RT	1,831.32	
LS-20	152+00.00		160+00.00	LT/RT	1,016.43	
LS-21	160+00.00		163+85.00	LT/RT	516.14	
LS-23	1999+70.00		2008+00.00	RT.	465.61	
LS-24	2008+00.00		2016+00.00	RT.	316.07	
LS-25	2016+00.00		2024+30.00	LT/RT	634.17	
LS-26	2100+00.00		2106+00.00	LT/RT	1,336.05	
LS-27	2106+00.00		2203+60.00	LT/RT	37.93	
LS-28	2403+35.00		2405+00.00	LT/RT	217.4	
LS-29	2405+00.00		2505+60.00	LT/RT	424.09	
LS-3	16+00.00		24+00.00	LT/RT	2,014.16	
LS-31					28,401.6	BARKER POND
LS-4	24+00.00		32+00.00	LT/RT	1,306.14	
LS-5	32+00.00		40+00.00	LT/RT	2,603.82	
LS-6	40+00.00		48+00.00	LT/RT	1,592.03	
LS-7	48+00.00		56+00.00	LT/RT	2,270.65	
LS-8	56+00.00		64+00.00	LT/RT	1,763.39	
LS-9	64+00.00		72+00.00	LT/RT	1,449.65	
					65,014.85	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

30 - LANDSCAPING

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02922001*	Drill Seed				8	Acre
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
LS-10	72+00.00		80+00.00	LT/RT	0.614	
LS-11	80+00.00		88+00.00	LT/RT	0.657	
LS-12	88+00.00		96+00.00	LT/RT	0.368	
LS-13	96+00.00		104+00.00	LT/RT	0.561	
LS-14	104+00.00		112+00.00	LT/RT	0.234	
LS-15	112+00.00		120+00.00	LT/RT	0.27	
LS-16	120+00.00		128+00.00	LT/RT	0.13	
LS-17	128+00.00		136+00.00	LT/RT	0.051	
LS-18	136+00.00		144+00.00	LT/RT	0.119	
LS-19	144+00.00		152+00.00	LT/RT	0.257	
LS-2	8+00.00		16+00.00	LT/RT	0.306	
LS-20	152+00.00		160+00.00	LT/RT	0.191	
LS-21	160+00.00		163+85.00	LT/RT	0.082	
LS-23	1999+70.00		2008+00.00	RT.	0.096	
LS-24	2008+00.00		2016+00.00	RT.	0.065	
LS-25	2016+00.00		2024+30.00	LT/RT	0.131	
LS-26	2100+00.00		2106+00.00	LT/RT	0.276	
LS-27	2106+00.00		2203+60.00	LT/RT	0.008	
LS-28	2403+35.00		2405+00.00	LT/RT	0.045	
LS-29	2405+00.00		2505+60.00	LT/RT	0.088	
LS-3	16+00.00		24+00.00	LT/RT	0.154	
LS-31					1.899	BARKER POND
LS-4	24+00.00		32+00.00	LT/RT	0.167	
LS-5	32+00.00		40+00.00	LT/RT	0.041	
LS-6	40+00.00		48+00.00	LT/RT	0.016	
LS-7	48+00.00		56+00.00	LT/RT	0.465	
LS-8	56+00.00		64+00.00	LT/RT	0.223	
LS-9	64+00.00		72+00.00	LT/RT	0.21	
					7.724	

Detailed Report

SP-0134(2)11

Version: 1

2700 NORTH; I-15 TO WASHINGTON

30 - LANDSCAPING

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
02922003*	Broadcast Seed				4	Acre
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
LS-31					3.969	BARKER POND
					3.969	
029220060	Turf Sod				8,430	sq ft
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
LS-15	112+00.00		120+00.00	LT/RT	85.46	
LS-16	120+00.00		128+00.00	LT/RT	436.16	
LS-17	128+00.00		136+00.00	LT/RT	386.6	
LS-19	144+00.00		152+00.00	LT/RT	128.34	
LS-2	8+00.00		16+00.00	LT/RT	348.25	
LS-20	152+00.00		160+00.00	LT/RT	90.57	
LS-21	160+00.00		163+85.00	LT/RT	117.25	
LS-3	16+00.00		24+00.00	LT/RT	1,269.54	
LS-4	24+00.00		32+00.00	LT/RT	497.38	
LS-5	32+00.00		40+00.00	LT/RT	2,404.07	
LS-6	40+00.00		48+00.00	LT/RT	1,514.56	
LS-7	48+00.00		56+00.00	LT/RT	22.47	
LS-8	56+00.00		64+00.00	LT/RT	686.29	
LS-9	64+00.00		72+00.00	LT/RT	434.02	
					8,420.96	

Detailed Report

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number		Description				Use Qty	Unit
028910005		Remove Sign				86	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
1000 W	2100+86.00			LT.	1.0		
1500 W	1001+48.00			LT.	1.0		
1500 W	1002+66.00			LT.	1.0		
2550 N	2300+57.00			LT.	1.0		
2550 N	2300+57.00			LT.	1.0		
2550 N	2300+69.00			LT.	1.0		
2550 N	2302+48.00			RT.	1.0		
2550 N	2305+40.00			LT.	1.0		
2700 N	10+27.00			RT.	1.0		
2700 N	11+14.00			RT.	1.0		
2700 N	11+72.00			LT.	1.0		
2700 N	11+97.00			LT.	1.0		
2700 N	11+97.00			LT.	1.0		
2700 N	12+61.00			LT.	1.0		
2700 N	12+84.00			LT.	1.0		
2700 N	13+33.00			LT.	1.0		
2700 N	13+35.00			LT.	1.0		
2700 N	13+53.00			RT.	1.0		
2700 N	13+57.00			LT.	1.0		
2700 N	13+64.00			RT.	1.0		
2700 N	14+00.00			RT.	1.0		
2700 N	14+19.00			LT.	1.0		
2700 N	14+28.00			RT.	1.0		
2700 N	14+62.00			RT.	1.0		
2700 N	14+93.00			RT.	1.0		
2700 N	15+06.00			LT.	1.0		
2700 N	15+49.00			RT.	1.0		
2700 N	154+65.00			LT.	1.0		
2700 N	154+70.00			LT.	1.0		
2700 N	154+70.00			LT.	1.0		
2700 N	154+70.00			LT.	1.0		
2700 N	154+72.00			RT.	1.0		
2700 N	154+84.00			RT.	1.0		

Detailed Report

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2700 NORTH; I-15 TO WASHINGTON

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	154+93.00			RT.	1.0	
2700 N	157+35.00			LT.	1.0	
2700 N	19+10.00			RT.	1.0	
2700 N	21+51.00			RT.	1.0	
2700 N	21+51.00			RT.	1.0	
2700 N	21+51.00			RT.	1.0	
2700 N	21+51.00			RT.	1.0	
2700 N	21+51.00			RT.	1.0	
2700 N	21+60.00			LT.	1.0	
2700 N	21+72.00			LT.	1.0	
2700 N	22+19.00			LT.	1.0	
2700 N	23+10.00			LT.	1.0	
2700 N	24+45.00			LT.	1.0	
2700 N	25+84.00			LT.	1.0	
2700 N	26+22.00			LT.	1.0	
2700 N	26+22.00			LT.	1.0	
2700 N	26+74.00			LT.	1.0	
2700 N	27+15.00			LT.	1.0	
2700 N	27+44.00			RT.	1.0	
2700 N	29+21.00			LT.	1.0	
2700 N	29+90.00			LT.	1.0	
2700 N	31+37.00			LT.	1.0	
2700 N	36+16.00			RT.	1.0	
2700 N	38+66.00			LT.	1.0	NOISE ORDINANCE ENFORCED ...
2700 N	38+67.00			LT.	1.0	
2700 N	38+69.00			LT.	1.0	
2700 N	38+70.00			LT.	1.0	
2700 N	38+72.00			LT.	1.0	
2700 N	45+54.00			RT.	1.0	
2700 N	46+44.00			RT.	1.0	
2700 N	55+08.00			RT.	1.0	
2700 N	55+40.00			LT.	1.0	
2700 N	58+05.00			RT.	1.0	
2700 N	58+10.00			LT.	1.0	
2700 N	59+09.00			RT.	1.0	
2700 N	60+16.00			RT.	1.0	

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Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	66+73.00			RT.	1.0	
2700 N	69+02.00			RT.	1.0	
2700 N	69+08.00			RT.	1.0	
2700 N	69+63.00			RT.	1.0	
2700 N	9+00.00			LT.	1.0	
2700 N	9+48.00			RT.	1.0	
2700 N	9+98.00			LT.	1.0	
600 W	2403+98.00			RT.	1.0	
HILLSB	2801+12.00			RT.	1.0	
SR-89	1996+00.00			RT.	1.0	SR 235
SR-89	2002+30.00			RT.	1.0	
SR-89	2003+54.00			RT.	1.0	
SR-89	2009+40.00			RT.	1.0	
SR-89	2011+68.00			RT.	1.0	
SR-89	2012+32.00			RT.	1.0	
SR-89	2014+51.00			LT.	1.0	
WASH	3090+00.00			RT.	1.0	SR 235
					<hr/> 86.0	

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Version: 1

2700 NORTH; I-15 TO WASHINGTON

40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number	Description		Use Qty	Unit
028910010	Relocation of Sign		14	Each
Line/Sheet	From Station	From Offset To Station To Offset	Qty	Comment
1000 W	2202+56.00		LT.	1.0
1000 W	2202+57.00		RT.	1.0
2700 N	15+45.00		LT.	1.0
2700 N	24+63.00		LT.	1.0
2700 N	25+62.00		RT.	1.0
2700 N	42+88.00		RT.	1.0
2700 N	43+30.00		LT.	1.0
2700 N	59+95.00		LT.	1.0
2700 N	59+97.00		RT.	1.0
2700 N	67+02.00		RT.	1.0
600 W	2403+98.00		RT.	1.0
SR-89	2016+41.00		LT.	1.0
SR-89	2018+35.00		RT.	1.0
SR-89	2018+35.00		RT.	1.0
			14.0	

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2700 NORTH; I-15 TO WASHINGTON

40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
028910030	Sign Type A-I, 21 inch X 15 inch				17	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	14+09.00			LT.	1.0	I 15, I 84
2700 N	14+09.00			LT.	1.0	I 15, I 84
2700 N	159+50.00			RT.	1.0	SR 235
2700 N	162+25.00			LT.	1.0	I 15, US 89
2700 N	55+25.00			RT.	1.0	US 89
2700 N	57+50.00			RT.	1.0	SR 134, US 89
2700 N	66+25.00			LT.	1.0	US 89, SR 235
2700 N	67+50.00			LT.	1.0	US 89
SR-89	2008+50.00			RT.	1.0	SR 134, SR 235
SR-89	2015+00.00			RT.	3.0	US 89, SR 134, SR 235
SR-89	2020+50.00			LT.	3.0	US 89, SR 235, SR 134
SR-89	2020+50.00			LT.	1.0	I 15
WASH	3098+00.00			RT.	1.0	SR 235
					17.0	

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40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
028910040	Sign Type A-I, 24 inch X 12 inch				17	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	13+33.00			LT.	1.0	
2700 N	14+05.00			RT.	1.0	SR 134
2700 N	14+09.00			LT.	2.0	I 15, I 84
2700 N	14+09.00			LT.	2.0	I 15, I 84
2700 N	162+25.00			LT.	1.0	I 15, US 89
2700 N	162+50.00			LT.	1.0	SR 235
2700 N	19+17.00			LT.	1.0	
2700 N	26+62.00			LT.	1.0	
2700 N	57+50.00			RT.	1.0	SR 134, US 89
2700 N	57+50.00			LT.	1.0	SR 134
2700 N	62+00.00			RT.	1.0	SR 134
2700 N	63+50.00			LT.	1.0	SR 235
2700 N	66+25.00			LT.	1.0	US 89, SR 235
2700 N	67+00.00			RT.	1.0	SR 235
SR-89	2020+50.00			LT.	1.0	I 15
					17.0	

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40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number	Description		Use Qty	Unit
02891004P	Sign Type A-I, 24 inch X 24 inch		13	Each
Line/Sheet	From Station	From Offset To Station To Offset	Qty	Comment
1000 W	2106+60.00		RT.	1.0
2700 N	162+25.00		LT.	1.0 I 15, US 89
2700 N	55+25.00		RT.	1.0 US 89
2700 N	57+50.00		LT.	1.0 SR 134
2700 N	57+50.00		RT.	1.0 SR 134, US 89
2700 N	66+25.00		LT.	1.0 US 89, SR 235
2700 N	67+50.00		LT.	1.0 US 89
2700 N	68+90.00		RT.	1.0
2700 N	70+10.00		LT.	1.0
2700 N	70+10.00		RT.	1.0
SR-89	2015+00.00		RT.	1.0 US 89, SR 134, SR 235
SR-89	2020+50.00		LT.	1.0 US 89, SR 235, SR 134
SR-89	2020+50.00		LT.	1.0 I 15
			13.0	

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40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
028910050	Sign Type A-I, 24 inch X 30 inch				22	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2100+20.00			RT.	1.0	
1000 W	2103+00.00			LT.	1.0	SPEED LIMIT 35
1000 W	2103+00.00			RT.	1.0	SPEED LIMIT 35
2550 N	2301+06.00			RT.	1.0	
2700 N	103+10.00			RT.	1.0	SPEED LIMIT 50
2700 N	132+50.00			LT.	1.0	SPEED LIMIT 50
2700 N	139+50.00			RT.	1.0	SPEED LIMIT 50
2700 N	14+20.00			RT.	1.0	SPEED LIMIT 45
2700 N	151+90.00			LT.	1.0	SPEED LIMIT 50
2700 N	158+00.00			RT.	1.0	
2700 N	32+63.00			LT.	1.0	
2700 N	37+50.00			RT.	1.0	
2700 N	48+95.00			LT.	1.0	
2700 N	50+25.00			RT.	1.0	
2700 N	58+50.00			LT.	1.0	SPEED LIMIT 45
2700 N	61+92.00			LT.	1.0	
2700 N	62+00.00			RT.	1.0	SR 134
2700 N	63+50.00			LT.	1.0	SR 235
2700 N	63+51.00			RT.	1.0	
2700 N	72+40.00			RT.	1.0	SPEED LIMIT 50
2700 N	96+75.00			LT.	1.0	SPEED LIMIT 50
600 W	2404+00.00			RT.	1.0	SPEED LIMIT 35
					22.0	

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40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number	Description		Use Qty	Unit
028910055	Sign Type A-I, 30 inch X 24 inch		13	Each
Line/Sheet	From Station	From Offset To Station To Offset	Qty	Comment
2700 N	14+05.00		RT.	1.0 SR 134
2700 N	159+50.00		RT.	1.0 SR 235
2700 N	162+50.00		LT.	1.0 SR 235
2700 N	57+50.00		RT.	1.0 SR 134, US 89
2700 N	66+25.00		LT.	1.0 US 89, SR 235
2700 N	67+00.00		RT.	1.0 SR 235
SR-89	2008+50.00		RT.	2.0 SR 134, SR 235
SR-89	2015+00.00		RT.	2.0 US 89, SR 134, SR 235
SR-89	2020+50.00		LT.	2.0 US 89, SR 235, SR 134
WASH	3098+00.00		RT.	1.0 SR 235
			13.0	
02891005P	Sign Type A-I, 36 inch X 12 inch		18	Each
Line/Sheet	From Station	From Offset To Station To Offset	Qty	Comment
1000 W	2100+20.00		RT.	3.0
1000 W	2106+60.00		RT.	1.0
1000 W	2108+52.00		LT.	2.0 MOUNT ON SAME POST AS STOP SIGN (# 366)
1000 W	2108+52.00		RT.	2.0 MOUNT ON SAME POST AS STOP SIGN (# 367)
2550 N	2301+06.00		RT.	1.0
2700 N	48+95.00		LT.	1.0
2700 N	50+25.00		RT.	1.0
2700 N	61+92.00		LT.	1.0
2700 N	63+51.00		RT.	1.0
2700 N	8+84.00		RT.	2.0
SR-89	2005+52.00		RT.	1.0
SR-89	2015+89.00		RT.	1.0
SR-89	2018+95.00		LT.	1.0
			18.0	

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2700 NORTH; I-15 TO WASHINGTON

40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number	Description		Use Qty	Unit
028910060	Sign Type A-I, 30 inch X 30 inch		22	Each
Line/Sheet	From Station	From Offset To Station To Offset	Qty	Comment
1000 W	2107+20.00	LT.	1.0	LEFT LANE MUST TURN LEFT
1000 W	2108+30.00	LT.	1.0	LEFT LANE MUST TURN LEFT
1000 W	2200+85.00	LT.	1.0	LEFT LANE MUST TURN LEFT
1000 W	2202+45.00	LT.	1.0	LEFT LANE MUST TURN LEFT
1850 W	501+25.00	RT.	1.0	
2550 N	2301+90.00	LT.	1.0	RIGHT LANE MUST TURN RIGHT
2550 N	2303+35.00	LT.	1.0	RIGHT LANE MUST TURN RIGHT
2700 N	10+70.00	LT.	1.0	RIGHT LANE MUST TURN RIGHT
2700 N	104+60.00	LT.	1.0	
2700 N	11+30.00	RT.	1.0	RIGHT LANE MUST TURN RIGHT
2700 N	12+10.00	RT.	1.0	RIGHT LANE MUST TURN RIGHT
2700 N	13+33.00	LT.	1.0	
2700 N	161+31.00	RT.	1.0	RIGHT LANE MUST TURN RIGHT
2700 N	163+51.00	RT.	1.0	RIGHT LANE MUST TURN RIGHT
2700 N	19+17.00	LT.	1.0	
2700 N	26+62.00	LT.	1.0	
2700 N	66+14.50	RT.	1.0	
2700 N	74+20.00	LT.	1.0	
2700 N	8+84.00	RT.	1.0	
2700 N	9+50.00	LT.	1.0	
2700 N	9+90.00	LT.	1.0	RIGHT LANE MUST TURN RIGHT
2700 N	95+25.00	RT.	1.0	
			22.0	

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40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number	Description				Use Qty	Unit
028910065	Sign Type A-I, 36 inch X 36 inch				11	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2100+80.00			RT.	1.0	
1000 W	2105+90.00			LT.	1.0	
1000 W	2105+90.00			RT.	1.0	
2700 N	45+75.00			LT.	1.0	
2700 N	45+80.00			RT.	1.0	
2700 N	60+45.16			LT.	1.0	
2700 N	65+04.39			RT.	1.0	
2700 N	9+30.00			RT.	1.0	
SR-89	2005+52.00			RT.	1.0	
SR-89	2015+89.00			RT.	1.0	
SR-89	2018+95.00			LT.	1.0	
					11.0	
02891006P	Sign Type A-I, 36 inch X 24 inch				2	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
1000 W	2107+50.00			RT.	1.0	
1000 W	2107+50.00			LT.	1.0	
					2.0	
028910070	Sign Type A-I, 48 inch X 48 inch				4	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment
2700 N	49+49.56			RT.	1.0	PLACE ON SIGNAL POLE
2700 N	49+49.76			RT.	1.0	PLACE ON SIGNAL POLE
2700 N	49+83.48			LT.	1.0	PLACE ON SIGNAL POLE
2700 N	49+83.85			LT.	1.0	PLACE ON SIGNAL POLE
					4.0	

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2700 NORTH; I-15 TO WASHINGTON

40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02891007P	Sign Type A-I, 30 inch X 18 inch					1	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	9+50.00			LT.	1.0		
					1.0		
02891008P	Sign Type A-I, 18 Inch Diameter					3	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	44+92.12			RT.	1.0		
2700 N	48+21.95			RT.	1.0		
2700 N	54+16.20			LT.	1.0		
					3.0		

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2700 NORTH; I-15 TO WASHINGTON

40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number	Description		Use Qty	Unit
028910115	Sign Type A-2, 30 inch X 30 inch		21	Each
Line/Sheet	From Station	From Offset To Station To Offset	Qty	Comment
1000 W	2108+52.00		RT.	2.0
1000 W	2108+52.00		LT.	2.0
1000 W	2200+68.00		RT.	1.0
1850 W	400+75.00		LT.	1.0
1850 W	500+65.00		LT.	1.0
2700 N	15+50.00		RT.	1.0
2700 N	154+60.00		LT.	1.0
2700 N	18+63.00		LT.	1.0
2700 N	19+10.00		RT.	1.0
2700 N	42+03.00		LT.	1.0
2700 N	45+83.00		LT.	1.0
2700 N	46+44.00		RT.	1.0
2700 N	8+84.00		RT.	1.0
600 W	2406+86.00		RT.	1.0
600 W	2500+72.00		LT.	1.0
HILLSB	2700+67.00		LT.	1.0
HILLSB	2800+69.00		LT.	1.0
PRKLND	900+67.00		LT.	1.0
WSATCH	800+65.00		LT.	1.0
				21.0
028910120	Sign Type A-2, 36 inch X 36 inch		1	Each
Line/Sheet	From Station	From Offset To Station To Offset	Qty	Comment
2550 N	2301+20.00		RT.	1.0
				1.0

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40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number	Description		Use Qty	Unit
02891013P	Sign Type A-2, 30 inch X 48 inch		2	Each
Line/Sheet	From Station	From Offset To Station To Offset	Qty	Comment
2700 N	11+15.00		RT.	1.0
2700 N	15+75.00		LT.	1.0
			2.0	
02891014P	Sign Type A-2, 24 inch X 24 inch		5	Each
Line/Sheet	From Station	From Offset To Station To Offset	Qty	Comment
2700 N	14+09.00		LT.	2.0 I 15, I 84
2700 N	14+09.00		LT.	2.0 I 15, I 84
2700 N	162+25.00		LT.	1.0 I 15, US 89
			5.0	
02891015P	Sign Type A-2, 18 inch X 18 inch		11	Each
Line/Sheet	From Station	From Offset To Station To Offset	Qty	Comment
2700 N	152+98.00		LT.	1.0
2700 N	153+08.00		LT.	1.0
2700 N	153+18.00		LT.	1.0
2700 N	153+28.00		LT.	1.0
2700 N	153+38.00		LT.	1.0
2700 N	25+91.00		RT.	1.0
2700 N	26+01.00		RT.	1.0
2700 N	26+11.00		RT.	1.0
2700 N	26+21.00		RT.	1.0
2700 N	26+31.00		RT.	1.0
2700 N	26+41.00		RT.	1.0
			11.0	

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40 - SIGNING

Alt Group: 0 Alt #: 0

Item Number	Description					Use Qty	Unit
02891020P	Sign Type P-1, 96 inch X 42 inch					1	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	21+60.00			LT.	1.0	WELCOME TO FARR WEST CITY	
					1.0		
02891021P	Sign Type P-1, 66 inch X 18 inch					1	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
SR-89	2012+30.00			RT.	1.0	FARR WEST	
					1.0		
02891022P	Sign Type P-1, 72 inch X 30 inch					2	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	27+45.00			RT.	1.0	WSU No. CENTER	
SR-89	2011+70.00			RT.	1.0	WSU No. CENTER	
					2.0		
02891023P	Sign Type P-1, 114 inch X 60 inch					3	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	59+00.00			RT.	1.0	PLEASANT VIEW/NO. OGDEN/OGDEN	
2700 N	65+00.00			RT.	1.0	FARR WEST/ OGDEN/ BRIGHAM CITY	
SR-89	2000+25.00			RT.	1.0	BRIGHAM CITY, NORTH OGDEN, PLEASANT VIEW	
					3.0		
02891024P	Sign Type P-1, 102 inch X 54 inch					1	Each
Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	
2700 N	38+70.00			LT.	1.0		
					1.0		

XI. Special Provisions

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 00250 S

PRE-BID CONFERENCE

PART 1 GENERAL

1.1 MANDATORY PRE-BID CONFERENCE:

- A. A mandatory Pre-Bid Conference will be held at the following time and location:

Date: June 11, 2003

Time: 10:00 a.m.

Location: UDOT - Region 1 Office
 169 North Wall Avenue
 Ogden, Utah 84412-2580

Project ID: 78049

- B. Representatives of Construction and Design will be present to discuss details related to the project.
- C. Bids submitted by Contractors who did not attend the Pre-Bid Conference will be non-responsive.

PART 2 PRODUCTS Not Used

PART 3 EXECUTION Not Used

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 00555 M

PROSECUTION AND PROGRESS

PART 1 GENERAL

Add the following paragraph to Subsection **1.12 LIMITATION OF OPERATIONS**

D. Sequence of Construction:

Confine all construction activities to the work site indicated on the Drawings. Perform work in accordance with the following recommended generalized construction sequence. Some of the itemized tasks may be performed concurrently.

1. Construct noise walls as shown on the plans prior to performing other work at these locations. Extensive tree trimming will be required at various locations prior to construction of noise walls.
2. Perform existing utility relocations and new utility installations between I-15 and 1000 West.
3. Perform mass earthwork between 1000 West and Washington Boulevard.
4. Begin road widening of SR-134 along the South side between I-15 and 1000 West. When complete, construct road widening of SR-134 along the North side between I-15 and 1000 West.
5. Perform Western Irrigation Canal Box Culvert work in two phases to coincide with general roadwork on 2700 North near Station 21+65. Phase lines are shown on the plans.
6. When possible, perform construction on irrigation piping and ditch systems outside of the normal irrigation season. When construction of irrigation system improvements must occur during the normal irrigation season, which is defined as April 15 to October 15, comply with the requirements of paragraph 00555-1.12 J.
7. Coordinate new traffic signal work to correspond to road widening construction.

- E. Submit a detailed sequence of construction based on the recommended generalized task summaries identified above. Indicate the tasks and task sequence on the CPM schedule.
- F. Show individual pay items of work on the CPM schedule. No item will be paid for twice.
- G. Coordinate work with the utility companies listed in Special Provision 00727 M. Include the utility companies' relocation work schedules in the CPM schedule. Do not perform construction which would prevent utility relocations.
- H. Maintain two-way traffic on all existing roadways throughout the entire duration of the project. Do not use local streets for hauling and construction access. Use only main roadways such as 2700 North, Washington Blvd., US 89, 2550 North, 1000 West and 600 West.
- I. Provide access to all businesses and residences adjacent to the project work site at all times. Provide business owners and residents a minimum of two days notice prior to performing work that impacts access.
- J. Do not interfere with irrigation watering schedules. When necessary to remove irrigation system improvements, provide a means whereby all water users will be able to access water on schedule. This includes constructing temporary crossings, ditches, diversions, or pumping. The CONTRACTOR is responsible for the cost of all temporary irrigation facilities and all damages to crops resulting from the disruption of watering schedules.
- K. Schedule waterline shutoffs to minimize impacts to the water users. Shut off water between 9:00 am and 4:00 pm, or 10:00 pm and 4:00 am only. Coordinate date, time, and shutoff duration with the water utility company.
- L. Coordinate work on 600 West with the work performed by Pleasant View City on 600 West and 2550 North immediately south of the construction limits.
- M. Prior to construction, comply with UPDES (Utah Pollution Discharge Elimination System) permit by completing a Notice of Intent (NOI) form available from the Department, obtaining the Engineer's signature on the NOI, and submit it to the Utah Division of Water Quality. For the duration of the project, comply with its conditions, and have a copy of it on the site at all times. Upon completion of the project, fill out and send a Notice of Termination (NOT) to the Utah Division of Water Quality.

- N. Do not perform any work which would affect the parcels listed in Table 1 until written confirmation has been received that these parcels have been acquired by UDOT.

Table 1
Right-of-Way Parcels Not Acquired by UDOT
23
23:E
34:2E
34:3E
42
42:E
49
49:E

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 00725 M

SCOPE OF WORK

PART 1 GENERAL

Add the following paragraphs to Subsection **1.2 INTENT OF CONTRACT**:

- B. This project generally involves the following:
1. Pavement reconstruction and roadway widening of SR-134 between I-15 and 1000 West along with cross streets and access to adjacent properties.
 2. Construction of the new SR-134 roadway extension between 1000 West and Washington Boulevard with access to adjacent properties and cross street improvements.
 3. Construction of drainage, irrigation and underdrain improvements including modifications to the existing North Ogden detention pond at 250 East - 2600 North and the existing Barker Pond North of roadway stations 78+50 to 83+00.
 4. Boring of a new storm drainage pipe and casing under the UPRR tracks at 1400 West 2700 North.
 5. Installation of noise walls along portions of the new roadway corridor between Hillsborough Drive and 300 East.
 6. Installation of new and relocation of existing water mains between I-15 and Rulon White Boulevard (1500 West).
 7. Construction of a concrete box culvert for the Western Irrigation Company Canal Crossing at 1800 West 2700 North.
 8. Traffic signal upgrades at three locations - Rulon White Boulevard (1500 West), US-89 and Washington Boulevard.
 9. Traffic signing and striping.
 10. Landscaping and wetland enhancement.

11. Installation of ATMS conduit for future signal interconnect between I-15 and 1000 West.

Add the following paragraphs to Subsection **1.15 RAILWAY - HIGHWAY PROVISIONS**:

- N. Do not damage railroad property or property of others occupying the railroad property. Repair any damage caused at CONTRACTOR's expense, or reimburse the railroad for any costs accrued to repair the damages.
- O. Call the UPRR at 1-800-336-9193 (a 24-hour number) to determine if fiber optic cable is buried anywhere on UPRR property located within the project limits. If a cable is present, call the telecommunications company(ies) involved, arrange for a cable locator, and make any arrangements for relocation or protection of such cable prior to beginning any work on the UPRR property.
- P. Obtain an application from the Union Pacific Railroad Company's website, <http://www.up.com/>, or Patty Hoesel, UDOT Utility and Railroad Coordinator, and execute a Right of Entry Agreement prior to performing any roadway or pipe placement work within the railroad's right of way.
- Q. Use \$580.00 per day as the estimated cost for railroad flagging.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 00727 M

CONTROL OF WORK

PART 1 GENERAL

Add the following paragraphs to Subsection **1.7 COOPERATION WITH UTILITIES**:

- H. Within the project limits are facilities belonging to Utah Power, Questar Gas Company, Qwest Corporation, Comcast, MCI Worldcom, Chevron Pipeline Company, Pineview Water Systems, Central Weber Sewer Improvement District, Bona Vista Water Improvement District, Western Irrigation Company, North Ogden City, Pleasant View City, Farr West City and Weber County.
- I. Questar Gas Company, Utah Power, Qwest Communications, MCI Worldcom and Comcast will be completing extensive facility relocations and installations as part of this project. Some relocation activities may begin prior to construction, but be advised that major utility relocation and installation activities will continue to be in progress during construction of the project.

Bona Vista Water Improvement District, Western Irrigation Company, Pineview Water Systems, North Ogden City and Central Weber Sewer Improvement District will have existing facilities relocated and/or new facilities installed as part of the contract. Contact the company representatives listed prior to beginning work on their facilities.

- 1. Attend a Preconstruction Meeting with the Utility Companies to coordinate plans and schedules.
- 2. Adjust sequencing of operations to accommodate the utility relocations.
- 3. Survey and stake control lines to facilitate utility relocations as per Section 01721, subsection 3.15.
- 4. Coordinate all construction activities affecting utility work with the utility contact persons listed below.
- 5. Comply with Section 02873S when excavating adjacent to Questar Gas Company steel HP and IHP gas lines.

Project No. SP-0134(2)11 SR-134, 2700 North, I-15 to Washington Blvd. Utility Contact List			
Company	Representative	Address	Telephone No.
Utah Power/Pacificorp	Mr. Jerry Isaacson	1407 West North Temple Suite 330 Salt Lake City, UT 84140	(801) 220-2421
	Don Profaizer	1438 West 2550 South Ogden, UT 84401	(801) 629-4428 don.profaizer@pacificorp.com
Questar Gas Company	Mr. Kyle Secretan Project Coordinator	1140 West 200 South P.O. Box 45360 Salt Lake City, UT 84145	(801) 324-3389 FAX (801) 324-3345 KyleS@questar.com
Qwest Corporation	Cheryl Bolinder, Senior Design Engineer	1425 West 3100 South Salt Lake City, UT 84119	(801) 974-8152 cbolind@qwest.com
Comcast	Sheryl Pehrson	9075 South 700 West Sandy, UT 84070	(801) 401-3023 Cell (801) 652-5374 SherylPehrson@cable.comcast.com
	Lyndon Lauhingoa		(801) 401-3048
MCI Worldcom	Mike Vandenberg	136 East South Temple Salt Lake City, UT 84111	(801) 364-8625 FAX (801) 363-4781 michael.vandenberg@worldcom.com
Chevron Pipeline Company	Brad C. Rosewood	651 South Redwood Road North Salt Lake, UT 84054	(801) 539-7339 Brad.Rosewood@chevron.texaco.com
Union Pacific Railroad	Mr. Jim Marshall, Manager Industry & Public Projects	280 South 400 West Suite 250 Salt Lake City, UT 84101	(801) 595-3560 FAX (801) 595-3337 JMARSHAL@up.com
	Jeff Gale, Manager Track Maintenance	3311 Pacific Ave. Ogden, UT 84401	(801) 626-8382 Cell (801) 557-4410
Pine View Water Systems	Mark Greenhalgh	471 West 2nd Street Ogden, UT 84404	(801) 621-6555 FAX (801) 621-6558
Central Weber Sewer Improvement District	Lance Wood, General Manager	2618 West Pioneer Rd. Ogden, UT 84404	(801) 731-3011 FAX (801) 731-0481 lancew@centralweber.com

Project No. SP-0134(2)11 SR-134, 2700 North, I-15 to Washington Blvd. Utility Contact List			
Bona Vista Water Improvement District	Paul Hodson	1483 Wall Ave. Ogden, UT 84414	(801) 621-0474 FAX (801) 621-0475
	Jerry Allen		(801) 430-5056
Western Irrigation Co.	Jimmie Papageorge, President	1630 Farr West Drive Ogden, UT 84404	(801) 782-9631
North Ogden City	Melvin Blanchard, Public Works Director	505 East 2600 North North Ogden, UT 84414	(801) 782-7211
Pleasant View City	Paul Ellsworth, Public Works Director	520 West Elberta Drive Ogden, UT 84414-1408	(801) 782-8529
Farr West City	Dave Bunderson, Public Works Director	2090 North 2000 West Farr West, UT 84404	(801) 731-4187
Weber County	Curtis Christensen, County Engineer	2380 Washington Blvd. Ogden, UT 84401	(801) 399-8007

- J. Utah Power/Pacificorp will be relocating 16 poles and underground connections at various locations within the existing roadway sections of the project.
- N. In addition to the relocation of existing gas lines required by the project, Questar Gas Company has a magnesium anode bank located at approximately Station 108+00 that will be relocated by Questar. Removal of the existing anode bank will be included in Roadway Excavation.
- O. In addition to the relocation of their facilities within the existing roadway sections, Qwest will be installing (3) - 4" PVC future use conduits under the sidewalk on the North side of the new alignment section. The conduits will be installed after the placement of the curb, gutter and sound walls, and prior to the placement of the sidewalk. Coordinate placement schedules with Cheryl Bolinder, Senior Design Engineer for Qwest, (801) 974-8152.
- P. 8" PVC and 4" PVC pipes under the new roadway section at Station 100+00 (600 West), Station 118+60 (Hillsborough Drive), Station 135+75 (4" only), and Station 154+50, (300 East) are for the future use of Questar and Qwest.
- Q. Chevron Pipe Line Company has an 8" petroleum pipeline located in the former Southern Pacific Railroad right of way at approximately Station 21+90 that parallels the proposed box culvert installation. The pipeline is at a sufficient depth to accommodate the pavement section, but due to concerns about the lateral

stability of the soils around the pipeline, and the safety of the pipeline in general during construction activities, adhere to the following stipulations:

1. Do not excavate within 4 feet of the pipeline measured horizontally from the outside of the box culvert excavation to the outside edge of the pipeline.
2. Chevron Pipe Line Company will mark the location of the pipeline within 48 hours of notification to do so.
3. Invite Chevron Pipe Line Company's representative to the preconstruction meeting or any other meetings relative to their facility in order to work out details of construction and to address safety concerns.
4. Notify Brad Rosewood, (801) 539-7339, when construction activity will be performed on or near the pipeline so arrangements can be made to have a Chevron representative on site.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 01280 M

MEASUREMENT

PART 1 GENERAL

Replace paragraph K of Subsection **1.2 GENERAL MEASUREMENT OF QUANTITIES** with the following:

- K. Materials to be measured by volume will be measured in final position.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 01282 M

PAYMENT

PART 1 GENERAL

Delete paragraph G, line 2, of Subsection **1.13 PROGRESS PAYMENTS**.

Renumber paragraph G, line 3, of Subsection **1.13 PROGRESS PAYMENTS** as paragraph G, line 2.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 01315 M

PUBLIC INFORMATION SERVICES

PART 1 GENERAL

Add the following paragraph to Subsection **1.4 PUBLIC INFORMATION MANAGER (PIM) RESPONSIBILITIES**:

- H. Coordinate efforts with the UDOT Region 1 Public Involvement Coordinator, Andy Neff, at 169 North Wall Avenue, P.O. Box 12580, Ogden, Utah 84412, Telephone Number: (801) 620-1641, prior to proceeding with work.

PART 3 EXECUTION

Add the following paragraph to Subsection **3.1 ESTABLISH LOCAL PUBLIC INFORMATION SERVICES**:

- L. For one week prior to beginning work, place two variable message signs along SR-134 to notify the public when work will commence. Locate one sign on the west limits of the project near I-15 for eastbound traffic and one sign near SR-89 for westbound traffic. Contact Darin Duersch at (801) 620-1607 for the exact sign locations and specific wording of the message.

Add the following Subsection to **PART 3 EXECUTION**:

3.2 FLIERS

- A. If the work requires utility (potable water, electrical power, natural gas, irrigation, telephone, etc.) outages, prepare and distribute fliers to all residents and businesses two calendar days in advance of utility outages.
- B. Indicate the date, time and duration of the planned outage on fliers.

- C. Coordinate the date, time and duration of the planned outage with the utility company.
- D. Coordinate the date, time and duration of the planned outage with retail business owners, if customers and sales may be affected.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 01355 M

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

Add the following Subsection to **PART 1 GENERAL**:

1.10 INVASIVE WEED CONTROL

- A. Weed species subject to control are listed on the Utah State Noxious Weed List, the county(s) weed list based on the project location, and any other additional species listed in the specifications.
- B. Clean all earthmoving construction equipment (scrapers, bulldozers, excavators, backhoes, etc) and vehicles of dirt, mud and seed residue before bringing equipment onto the project.
 - 1. Certify that all equipment has been cleaned.
 - 2. Use high pressure water blasting or steam cleaning methods.
 - 3. Remove from the project and clean before using on the project any uncleaned or inadequately cleaned equipment.
- C. Minimize soil disturbance within right-of-way.
 - 1. Keep all construction operations within slope stake limits.
 - 2. If soil disturbance outside slope stake limits is necessary, observe the following:
 - a. Keep disturbed area to a minimum.
 - b. Monitor and control disturbed area for weed invasion.
 - c. Revegetate disturbed area when disturbance is no longer necessary.
- D. Clear project work area of undesirable vegetation before soil disturbance begins. Where growing, eradicate noxious or invasive weeds with selective herbicides before stripping topsoil.

- E. Control and monitor gravel, borrow, and topsoil sources and stockpiles for noxious or invasive weeds. Use pre-emergent, selective, and non-selective herbicides as appropriate.
- F. Eradicate invasive weeds. Use pre-emergent, selective, and non-selective herbicides as appropriate.
- G. Inspect and monitor erosion control practices throughout construction.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 01554 M

TRAFFIC CONTROL

PART 1 GENERAL

Add the following paragraphs to Subsection **1.6 TRAFFIC CONTROL PLAN REQUIREMENTS**:

- J. Provide a smooth asphalt riding surface at all times along mainline SR-134.
- K. Provide at least one 12-foot wide lane for traffic in each direction at all times between I-15 and 1000 West. No road closures will be allowed in either direction.
- L. Provide separate left turn and right turn lanes at SR-89, and Washington Boulevard and 1500 West.
- M. Provide a minimum speed limit of 35 mph during construction.
- N. Provide access to all businesses and residents adjacent to the project at all times.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 01721 M

SURVEY

PART 3 EXECUTION

Delete Subsection **3.3 COMPUTATIONS AND PLOTS** and replace with the following:

3.3 COMPUTATIONS AND PLOTS

- A. Use cross-sections to calculate volume measurements.
 - 1. Superimpose final cross sections with original cross sections and calculate final quantities using the average end area method.
 - 2. Develop cross-sections from field measurements.
 - a. Take cross section measurements both before and after excavation and prior to backfill.
 - b. When the centerline curve radius is less than or equal to 500 ft, take cross sections at a maximum centerline spacing of 25 ft.
 - c. When the centerline curve radius is greater than 500 ft, take cross sections at a maximum spacing of 50 ft.
 - d. Take additional cross sections at breaks in terrain and at changes in typical sections.
 - e. For each cross section, measure and record points at breaks in terrain, but at least every 25 ft unless otherwise approved by the Engineer.
 - f. Measure and record points to at least the anticipated slopes and reference locations.
 - g. Reduce all cross section distances to horizontal distances from centerline.
 - h. Take cross sections at right angles to tangents and normal to curves.
 - i. Include in cross sections all grades, locations, and existing ground line profiles.
 - 3. May develop cross sections from digital terrain models provided that:
 - a. The ground survey locations do not exceed 100 ft in any direction.
 - b. Major breaks in terrain are also included.
 - c. The horizontal and vertical control for the project is used.
 - d. The DTM is verified accurate to require tolerances by spot checking throughout the length of the project.

- B. Engineer may approve alternate methods of calculating quantities.

Add the following Subsection to **PART 3 EXECUTION**:

3.15 UTILITIES

- A. As part of cooperating with the utility companies listed in Section 00727, stake control lines as needed so their facilities can be relocated to the proper final position. Also, stake crossings or potential points of conflict between facilities to give proper horizontal and vertical control for the relocation. Schedule this survey work with the utility companies to minimize delays and disruption of survey stakes. Replace all disturbed stakes as necessary to facilitate the relocations. The Contractor is responsible for costs incurred to relocate any utility more than once due to inaccurate or incomplete staking.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 01892 M

**RECONSTRUCT CATCH BASIN, CLEANOUT, METER,
VALVE, MANHOLE, AND MONUMENT BOXES**

PART 1 GENERAL

Delete paragraph A of Subsection **1.1 SECTION INCLUDES** and replace with the following:

- A. Reconstruct catch basin, cleanout, meter, valve, manhole, monument boxes, and monitoring wells to meet the grade of the adjacent surfaces.
- B. Furnish and set survey monuments.

PART 2 PRODUCTS

Add the following Subsection to **PART 2 PRODUCTS**:

2.3 MONUMENTS

- A. Use ring, cover, and brass caps approved by the Weber County surveyor.

PART 3 EXECUTION

Add the following Subsection to **PART 3 EXECUTION**:

3.4 MONUMENTS

- A. The following existing monuments are found within the project work limits:

Monument	Location
1/4 Section Corner	35+48.32
Section Corner	61+80.69
1/4 Section Corner	88+35.33

- B. Notify the Weber County surveyor one month prior to the removal or disturbance of these monuments so that these points can be adequately tied down.
- C. Before the new monument boxes are set, contact the Weber County surveyor to verify the position of the box and cap. Purchase County approved brass caps from the Weber County Surveyor's office.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 02056 M

COMMON FILL

PART 2 PRODUCTS

Add the following paragraphs to Subsection **2.2 GRANULAR BORROW**:

- C. Use of RAP (Reclaimed Asphalt Pavements) in Granular Borrow.
 - 1. RAP plus Granular Borrow Aggregate conforming to Classification A-1-a Meet AASHTO M 145.
 - 2. RAP Content - 25% Maximum by weight.
 - 3. Mix RAP thoroughly, uniformly and consistently throughout.
 - 4. Moisten the Granular Borrow with RAP mix to within 2 % of the optimum moisture content for the virgin Granular Borrow.
 - 5. Compactive effort established by roller pattern. Moisten or dry the Granular Borrow with RAP mix to obtain the optimum moisture for compaction. Moisture/Density recorded from roller pattern until maximum density is achieved.
 - 6. Acceptance testing performed at maximum density. Maximum Density is established when curve peaks and begins falling or maintains a constant.
 - 7. Maximum Density value approved by the ENGINEER.
- D. Use of RAP in Granular Backfill Borrow and Free Draining Granular Backfill Material is not allowed.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 02061 M

SELECT AGGREGATE

PART 3 EXECUTION

Replace paragraph A.1 of Subsection **3.1 INSTALLATION** with the following:

3.1 INSTALLATION

- A. Underdrain:
 - 1. Excavate a trench to a depth of 3 inches below the underdrain pipe flow-line and to a width of the outside diameter of the pipe plus 1.25 feet.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 02075 M

GEOTEXTILES

PART 2 PRODUCTS

Delete Subsection **2.4 SEPARATION GEOTEXTILE** and replace with the following:

2.4 SEPARATION GEOTEXTILE

- A. Polypropylene non-woven needle-punched fabric stabilized to resist degradation due to ultraviolet exposure and soil chemicals.
- B. Non-biodegradable and stable within a pH range of 2 to 13.
- C. Meet the following minimum average roll values:

Property	Test Method	Minimum Average Roll Value
Grab Tensile	ASTM-D-4632	203 lbs
Grab Elongation	ASTM-D-4632	50 %
Mullen Burst	ASTM-D-3786	380 psi
Puncture	ASTM-D-4833	130 lb
Trapezoidal Tear	ASTM-D-4533	80 lb
UV Resistance	ASTM-D-4355	70 % at 500 hrs
AOS ⁽¹⁾	ASTM-D-4751	100 sieve
Permittivity	ASTM-D-4491	1.5 sec ⁻¹
Flow Rate	ASTM-D-4491	110 gal / min / ft ²

(1). maximum average roll value

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 02076 S

STEEL CASINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Materials and procedures for installing steel pipe casing and tongue and groove reinforced concrete pipe (RCP) carrier pipe under the Union Pacific Railroad tracks.
- B. Materials and procedures for installing new steel pipe casing on existing ductile iron carrier pipe under highway SR-89.

1.2 RELATED SECTIONS

- A. Section 01355: Environmental Protection
- B. Section 02056: Common Fill
- C. Section 02079 S: Water Systems
- D. Section 02317: Structural Excavation
- E. Section 02324: Compaction
- F. Section 02610: Pipe Culverts
- G. Section 05120: Structural Steel

1.3 REFERENCES

- A. ASTM A 53: Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
- B. ASTM C 76 (AASHTO M170): Reinforced Concrete Culvert, Storm Drain and Sewer Pipe.

- C. ASTM C150: Portland Cement.
- D. ASTM C443 (AASHTO M198): Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.
- E. ASTM C924: Standard Practice for Testing Concrete Pipe Sewer Lines by Low-Pressure Air Test.

1.4 SUBMITTALS

- A. Details of jacking pit bracing, casing or conduit, and jacking head to be used.
- B. Dimensions and support of pilot tunnel (if used).
- C. Details of steel rails in pilot tunnel (if used), including true line and grade.
- D. Copy of applicable permits from agency having jurisdiction.

1.5 PERFORMANCE REQUIREMENTS

- A. Jack conduit to line and grade indicated. Modify the jacking operation to correct any deviation. Correct any misalignment in line or grade at no additional cost to the Department.
- B. The methods and equipment used in jacking casing or conduit are at the option of the CONTRACTOR.
- C. Use workers experienced in jacking operations.
- D. Comply with Union Pacific Railroad encroachment permit requirements.
- E. Obtain a copy of the Union Pacific Railroad Safety Plan. Post a copy of the Safety Plan at the construction site. Comply with the requirements of the Safety Plan.

PART 2 PRODUCTS

2.1 STEEL CASING

- A. ASTM A 53, Grade B steel pipe for jacking operations, minimum wall thickness of 0.75-inch, minimum yield stress of 35,000 psi. Use casings of diameters and thicknesses as shown in the plans or with a diameter equal to the outside bell diameter of the pipe plus a minimum 4-inches.

- B. Use fabricated welded steel casings with beveled ends for field butt welding.
- C. Fillet weld joints continuous around casing and reinforce joints to withstand jacking operations.

2.2 CARRIER PIPE

- A. Storm Drain:
 - 1. RCP: ASTM C76 Class IV minimum meeting the requirements of UDOT Class C pipe.
 - 3. Provide gasketed, tongue and groove (flush bell) joints.
 - 4. When concrete pipe is to be jacked, use a pipe section designed to support the superimposed loads and the loads that may be placed upon the pipe during jacking operations. Use pipe sections that have a watertight joint.
- B. Potable Water:
 - 1. AWWA C151 Ductile Iron.
 - 2. Comply with Specification Section 02079 S.

2.3 FINE-GRADED SAND

- A. Use fine-graded sand in accordance with Part 2, Section 02056.

2.4 REDWOOD SKIDS

- A. Use pressure treated lumber free from decay, splits, or other defects that would weaken the material.

2.5 PORTLAND CEMENT CONCRETE

- A. Portland cement concrete in accordance with Section 03055.

PART 3 EXECUTION

3.1 PREPARATION

- A. Refer to Section 00727 M to coordinate utility locations.
- B. Protect all materials during delivery and installation. Replace any damaged materials.
- C. Verify position of nearby utilities and establish a path for the casing which will avoid conflicts with any subsurface utilities while following the plans.

- D. Prepare and submit to the ENGINEER for approval an emergency safety and repair plan for accidental damage caused to existing utilities resulting from boring operations (i.e., high pressure natural gas, high pressure petroleum, fiber optic, water, or sewer).
- E. Contact the Utility Owner, Union Pacific Railroad and the Department to schedule inspections of the casing installation. Refer to Utility Contact List in Section 00727 M.

3.2 JACKING PROCEDURE

- A. When casing is to be jacked through plastic clay, continue uninterrupted operations until the casing has been jacked between specified limits.
- B. Equip leading section of casing with a jacking head securely attached to prevent any wobble or variation in alignment during the jacking operation.
- C. Protect the driving end against spalling or other damage, and install sufficient bearing shims to intermediate joints to properly distribute jacking stresses. Remove and replace any section showing signs of failure.
- D. No excavation in excess of the outer dimensions of the conduit being jacked will be allowed unless approved. Avoid any loss of earth outside the jacking head.
- E. Upon completion of jacking operations, pressure grout voids around outside face of the conduit. Grouting around jacked conduit must be started immediately after jacking operations have finished.
- F. During the jacking operation, backpack with soil cement any annular space occurring outside of conduit that could affect any surface structure or facility.

3.3 PILOT TUNNEL

- A. Construct tunnel where casing 60-inches or greater inside diameter is to be jacked for a distance greater than 32-feet.
- B. Remove supports for tunnels as jacking progresses.

3.4 PIPE SUPPORT IN CASING

- A. Obtain approval from utility company and the ENGINEER prior to installing carrier pipe.

- B. Install carrier pipe to rest upon redwood skids with the pipe bells clearing the casing invert by at least 1/2-inch.
- C. Use redwood skids throughout the length of the pipe to maintain line and grade. Attach skids to carrier pipe with stainless steel straps.
- D. Fill annular space with fine-graded sand and concrete.

3.5 POTABLE WATER CARRIER PIPE

- A. Extend existing casing as indicated on the Drawings.
- B. Install casing and carrier pipe using open trench construction.
- C. Coordinate casing and carrier pipe installation with other utility work.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 02079 S

WATER SYSTEMS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Piping and fittings for project waterlines including main lines, fire hydrant supply lines, and water service lines.
- B. Valves, fire hydrants and appurtenant items.
- C. Materials and procedures for installing plugs in the end of abandoned water line piping.

1.2 RELATED SECTIONS

- A. Section 00555: Prosecution and Progress.
- B. Section 00727: Control of Work.
- C. Section 01286S: Potholing.
- D. Section 02221: Remove Structure and Obstruction.

1.3 REFERENCES

- A. Attachment A: Bona Vista Water Improvement District Standard Specifications.
- B. Attachment B: Pleasant View City Standard Specifications.
- C. Attachment C: North Ogden City Standard Specifications.
- D. Attachment D: Pine View Water System Standard Specifications.

PART 2 PRODUCTS

2.1 BONA VISTA WATER DISTRICT APPROVED MATERIALS

- A. Use materials as specified and in accordance with the Bona Vista Water Improvement District (BVWID) specifications included in Attachment A.
- B. Submit a list of materials to BVWID for approval prior to its purchase.
- C. Schedule field inspections with BVWID and the ENGINEER prior to installation.

2.2 PLEASANT VIEW CITY APPROVED MATERIALS

- A. Use materials as specified and in accordance with the Pleasant View City specifications included in Attachment B.
- B. Submit a list of materials to Pleasant View City for approval prior to its purchase.
- C. Schedule field inspections with Pleasant View City and the ENGINEER prior to installation.

2.3 NORTH OGDEN CITY APPROVED MATERIALS

- A. Use materials as specified and in accordance with the North Ogden City specifications included in Attachment C.
- B. Submit a list of materials to North Ogden City for approval prior to its purchase.
- C. Schedule field inspections with North Ogden City and the ENGINEER prior to installation.

2.4 PINE VIEW WATER SYSTEM APPROVED MATERIALS

- A. Use materials as specified and in accordance with the Pine View Water System specifications included in Attachment D.
- B. Submit a list of materials to Pine View Water System for approval prior to its purchase.
- C. Schedule field inspections with Pine View Water System and the ENGINEER prior to installation.

2.5 ABANDONED WATER LINE PIPING PLUGS

- A. Plug the ends of abandoned water lines as shown on the Plans.
- B. Use Portland cement concrete unless specified otherwise by the utility company.

PART 3 EXECUTION

3.1 PREPARATION

- A. Coordinate all waterline work with the Bona Vista Water Improvement District and/or Pleasant View City and/or North Ogden City and/or Pine View Water System.
- B. Gain approval from BVWID and/or Pleasant View City and/or North Ogden City and/or Pine View Water System on construction schedule including shutoff times, durations and affected service connections.

3.2 INSTALLATION

- A. Schedule field inspections and testing with BVWID and/or Pleasant View City and/or North Ogden City and/or Pine View Water System and the ENGINEER during and after installation.
- B. Follow the instructions given in the BVWID and/or Pleasant View City and/or North Ogden City and/or Pine View Water System specifications for pipe laying and service connections.
- C. Install brass wedges at each pipeline joint to aid line locating in the future.
- D. Test and disinfect waterlines. Gain approval from BVWID and/or Pleasant View City and/or North Ogden City and/or Pine View Water System and the ENGINEER prior to backfill and charging of the waterline system.
- E. With a BVWID and/or Pleasant View City and/or North Ogden City and/or Pine View Water System inspector present, tap into the live waterline and plug the unused end of the tee. Monitor the connection for any leakage and make adjustments, if leakage occurs.

END OF SECTION

ATTACHMENT A
OF
SPECIAL PROVISION SECTION 02079 S
BONA VISTA WATER SYSTEM REQUIREMENTS

The information included in Section 02079 S - Attachment A, Bona Vista Water System Requirements is provided for the convenience of the Contractor. It is the Contractor's responsibility to obtain and comply with the requirements of the Bona Vista Water System standards.

Special Condition 10:4, Special Condition C, 3-2, 3-7, 3-8, 3-9, 3-10, 3-11, and 12-2 of the Attachment A, Bona Vista Water System Requirements are deleted. The deleted requirements are to be completed in accordance with the UDOT Contract.

SPECIAL CONDITIONS

- 10:1 Contractor shall be responsible for all permits with governmental agencies.
- 10:2 Contractor shall contain his equipment within the easements on the private property and shall backfill, compact and grade trench area and any used or damaged area back to a condition as good as it was prior to construction immediately on completion of excavation.
- 10:3 Any damage to existing fences not required to be disturbed shall be repaired to acceptable condition immediately.
- Complete in accordance with the UDOT contract* 10:4 ~~Fences that are to be replaced shall be constructed on completion of backfill. Fences shall consist of cedar posts at each end, braced with backup cedar post and horizontal brace with diagonal wire twist. Line posts to be H.D. steel posts six feet with a braced cedar stretch post at 200 foot intervals and the fence shall be five strand domestic barb wire.~~
- 10:5 Since this District serves some areas that are not served by public sanitary sewers and there are septic tanks and drain fields within the area the District complies with applicable Utah S.D.W. rules as in Sec. 12-2 of Safe Drinking Water Rules.

SPECIAL CONDITIONS

- A. The Contractor agrees to furnish certificates of Liability Insurance and Workmans Comp Insurance with Hold Harmless Clause to the Bona Vista Water Imp. District.
- B. The Contractor agrees to keep the service road open and accessible for those who live and work in that area and must be able to get in and out.

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- C. ~~The Contractor agrees this project shall be given priority and that after written notice to proceed is given the job will be completed within _____ working days or ____ calendar month with beginning date to be within _____ day's after notice.~~

BONA VISTA WATER IMPROVEMENT DISTRICT

SPECIFICATIONS

PAGE 1

SECTION 1

PART 1: The Bona Vista Water Improvement District requires that any contractor, subdivider, developer, or owner wishing to construct water lines or facilities of the District be bound to, and strictly adhere to, these specifications.

SPECIAL CONDITIONS

SECTION 1, PART A

- 1a: Permits and Inspection Fees: Should there be permit fee's or inspection fees on the project they shall be a responsibility of the contractor and contractor should be aware of fees if any before bidding.
- 2a: Locations: Contractor should be aware not all underground facility owners are subscribers to the Blue Stakes Program and since contractor is responsible for locations of underground lines, shall call the owners if they are not Blue Stake subscribers. This paragraph adds to Section B 3-3 of these specifications.
- 3a: Safety: This paragraph adds to Paragraph B 3-1 and B 3-5 of these specifications. Contractor shall provide Workman's Comp. Insurance for his workmen and a Certificate of said insurance to be filed with the District. Contractor to observe OSHA requirements and submit a letter on official letterhead so stating and shall observe Utah D.O.T. flagging and barricade requirements.
- 4a: Contractor shall be expected to attend a Pre-Construction conference and to have all required certificates in the hands of the owner prior to the meeting. Other utilities and agencies will be present to co-ordinate with owner and contractor on work which will affect them.
- 5a: Any question on the plans, specifications and project should be asked and cleared up prior to submission of bid.
- 6a: The contractor shall schedule his work so the water will not have to be turned off on a Monday or a Friday or a weekend and the new line shall be installed right up to each end of the existing line and the thrust blocks poured and allowed to cure for at least 36 hours prior to the time the line is to be cut and the new line put in use.

- 7a: The materials shall be brought to a point adjacent to where work is to be performed and assembled, as much as possible, for each of the ends requiring cutting into the existing line before the contractor requests the water be shut off.
- 8a: The work shall be arranged so the water will only be off a minimum amount of time, which shall be during the 8:00 AM to 4:00 PM hours of a weekday and the water will not be turned off after 12:00 noon of any day or on a weekend.
- 9a: Any materials salvaged when removing existing lines shall remain the property of the Water District.
- 10a: The contractor will have adequate pumps to remove water from the trenches where he is cutting into existing water lines, and must keep the ground water and drain water from entering the pipelines.
- 11a: Contractor shall have a plug in end of line at all times except when work is being done on that line to prevent entry of foreign materials or rodents.
- 12a: Contractor shall give owners representatives at least 24 hours notice prior to having any water shut down in order to notify its customers.

BONA VISTA WATER IMPROVEMENT DISTRICT

SPECIFICATIONS

SECTION 3 - SPECIAL CONDITIONS

- 3-1 All work under this contract must conform to the various City, County and Utah State Codes applicable which concern sanitary codes, safety codes, plumbing codes, methods of excavation and backfill and the contractor must, at his own expense, secure all permits and make all necessary arrangements for inspection and approval by inspectors of the County and of Utah State and City if applicable.
- 3-2 ~~All wages must conform to the current minimum wage scale as established by the Industrial Commission of the State of Utah.~~
- 3-3 The contractor shall be responsible for all existing sewer, water, gas or oil pipelines, buried underground cables, irrigation systems and other public or private utilities. The contractor shall contact the people in charge of these utilities and shall be responsible to them for any repairs or damage which might occur during construction. The contractor shall use care and caution in his work that damage or inconveniences are not caused the owners and users of these utilities and shall indemnify and hold harmless the Bona Vista Water Imp. District from any claims which might arise due to his actions while working around or adjacent to these utilities and for a period lasting one year after final acceptance of his work by the Water District.
- 3-4 The cost of any inspection or and special work which is required while working around, adjacent to, or in the locality of, any existing utility as defined in paragraph 3-3, shall be borne by the contractor in the unit price of excavation per lineal foot and shall not cause extra expense to the Water District.
- 3-5 The contractor shall make application to the State of Utah, or the County of Weber, or to any Railroad or any Public or Private Utility for any work he must do in performance of this contract which requires working in or through the right of way owned by these entities. He must furnish such necessary insurance and bounds as may be required by them at no additional cost to the Water District and must cause his work to conform with their requirements and furnish the necessary safety precautions and all flagman required at no cost to the Water District.
- 3-6 The contractor must provide protective insurance while working on this contract which shall hold the Water District harmless from any claims arising from any actions by the contractor, his men, any sub-contractors and their men, or any material suppliers and their men while working on or for this contract.

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3-6 (Continued)

The insurance shall be as set forth below:

Bodily Injury Liability - Auto	\$ 500,000.00 each person 1,000,000.00 each accident
Bodily Injury - except auto	500,000.00 each person 1,000,000.00 each accident
Property damage- auto	500,000.00 each occurrence
Property damage-except auto	500,000.00 each occurrence 500,000.00 products 500,000.00 contractual 500,000.00 completed operation

A certificate of insurance shall be filed at the office of the Bona Vista Water Imp. District from the Insurance Company which shall be licensed to do business in the State of Utah, showing this insurance to be in effect at the time the contract is initially executed and a statement that the Insurance Company will notify the Bona Vista Water Imp. District by registered mail at least 10 days in advance of any cancellation or changes in the insurance. Should this occur the Water District shall immediately stop the contractor from all operations on this contract until a new certificate of insurance is issued with the same provisions, and any time lost by the cancellation shall be counted against the contractor's time limit for completion of the contract.

PERFORMANCE BOND

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- 3-7 ~~A performance bond in amount equal to 100% of the contract price shall be furnished the Water District by the contractor which shall be on a form which guarantees proper completion of the contract and which will guarantee satisfactory operation of the completed work for a period of one (1) year after final acceptance of the work by the Water District.~~

LABOR AND MATERIAL BOND

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- 3-8 ~~The contractor will be required to furnish a bond in an amount equal to 50% of the amount of the contract which guarantees payment of labor and materials used in or for this contract.~~
- 3-9 ~~The contractor shall be required to furnish a certificate of insurance showing that he has proper Workman's Compensation Insurance in effect and that he will hold harmless the Bona Vista Water Improvement District from claims arising from any accident or incident which occurs during the contract period from workmen on or around the job.~~

LIQUIDATED DAMAGES

- 3-10 ~~Liquidated damages will result should the contractor fail to complete the work satisfactorily within the time fixed which is _____ days from date of execution of the contract and obtain final acceptance from the Water District. The contractor shall pay to the Owner, or it shall be deducted from the contractor's final payment, the sum of (_____) dollars per each calendar day required to complete the work after the time limit specified in the contract. This sum shall not be a penalty but shall be in payment for the Water District's time and inconvenience..~~

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REQUESTS FOR PAYMENT

- 3-11 ~~The contractor will be required to submit once each month an estimate of work completed for which he seeks payment. All estimates shall be submitted to the Water District to be checked and approved, or adjusted and then approved after which the Water District shall make payment for the approved amount within 30 days after approval.~~

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SPECIFICATIONS

Section 4 - Materials

GATE VALVES

- 4-1 Gate valves shall be cast iron body, bronze mounted, non rising stem with operating nut of standard make unless otherwise specified and shall comply with all AWWA specifications not specifically mentioned in these specifications. The gate valves shall have end styles to fit the pipe being used and shall be furnished complete with adjustable cast iron valve boxes for a buried depth of 4 feet below the surface of the ground. All gate valves shall have rating and compliance with ASTM numbers stamped on the body of the valve. The valve shall have been treated by the manufacturer before shipment at an internal pressure of at least twice (2) the working pressure.

CAST VALVE BOXES

- 4-2 All valve boxes shall be cast iron, adjustable and shall have a minimum wall thickness of at least 3/16 inch with a heavy duty recessed lid at the ground surface.

PIPE

- 4-3 District shall require ductile iron pipe. Pipe shall meet all specification requirements of ANSI/AWWA C 151/A21.51-.91.

FITTINGS

- 4-3a Fittings used shall comply with ANSI/AWWA C110/A21.10 standard.

JOINTS

4-3b Joints used shall comply with ANSI/AWWA C111/A21.11.

OTHER PIPE

4-3c On 6" and 8" diameter lines and certain other lines the Water District will consider written requests to allow certain distribution lines to be constructed with PVC pipe. A request must be made in writing to use any pipe other than specified in 4-3 and a decision made by the District after consideration. On 6" and 8" pipe under some circumstances we will consider pipe manufactured under AWWA Standard C-900 PVC and on PVC C-901, AWWA specification manufactured and tested under AWWA C-900 spec and shall conform to NSF Standard 14 and ANSI/NSF Standard 61. These requests must be in writing before approval of any project with all information on pipe. All pipe and materials which may contact drinking water, including pipes, gaskets, lubricants and O-rings must be approved and stamped by the Nat'l Sanitation Foundation and shall be stamped with the logo "NSF-pw". Decisions on the pipe are totally up to the District and decision is final.

4-3d The horizontal distance between pressure water mains and sanitary sewer lines shall be at least ten feet. Where a water main and a sewer line must cross, the water main shall be at least 18 inches above the sewer line. Separation distances shall be measured edge to edge (i.e. from the nearest edges of the facilities). Water mains and sewer lines shall not be installed in the same trench.

CUTTING, CLEANING, INSPECTION

4-4 Cutting of pipe for any reason shall be done in a neat and work-man like manner with proper equipment (Approved saw type mechanical cutters or equal acceptable method is determined by District's Inspector) and shall be done in a manner so as not to damage the pipe. The interior of each length of pipe shall be swabbed with a device formed to match the interior of the pipe and after swabbing, the pipe shall be kept clean. Before installation each length of pipe shall be inspected and shall be rung by a light hammer to detect cracks on cast iron or ductile iron pipe. This is not to be done if PVC pipe is used. All defective, damaged, or unsound pipe shall be rejected and it shall be the contractor's liability and his expense to have it replaced with acceptable pipe.

CONCRETE

4b-1 Portland Cement shall comply with Standard Specifications for Portland Cement (ASTM-C-150) or the Standard Specifications for Air-Entraining Portland Cement (ASTM-C-173) and shall be type 11A.

AGGREGATES

- 4b-2 Concrete Aggregates shall conform to Tentative Specifications for Concrete Aggregates (ASTM-C-33) or to Tentative Specifications for Lightweight Aggregates for Structural Concrete (ASTM-C-330). The maximum size of the aggregate shall not be larger than one-fifth of the narrowest dimension between from of the member for which the concrete is to be used nor larger than three-fourths of the minimum clear spacing between Reinforcing bars.

WATER

- 4b-3 Water used in mixing concrete shall be clean and free from deletion amounts of acids, alkalies, or organic materials.

CONCRETE QUALITY

- 4b-4 The allowable stresses for the design are based on minimum 28 day compressive strength of the concrete of 3000 p.s.i.

CONCRETE MIX

- 4b-5 Concrete shall be mixed with a cement, sand, gravel ratio of 1:2:6 with 6 sacks of cement per cubic yard of concrete in the finished product. Sufficient water shall be used to produce an elastic mixture, but not enough to cause it to flow. In freezing cold conditions no more than 6 gallons of water per sack of Portland Cement shall be used.

AIR ENTRAINING AGENTS

- 4b-6 The contractor shall use an air entraining agent in the concrete when directed to do so by the Project Engineer or by the Water District at which time specific instructions shall be given in writing.

MIXING AND DEPOSITING

- 4b-7 All concrete shall be thoroughly mixed so there is a uniform distribution of the materials. All foreign materials shall be removed before the concrete is placed and any reinforcing steel shall be thoroughly cleaned. Any water in the place the concrete is to be placed shall be removed before the concrete is deposited and the place shall be determined ready to receive concrete by the Water District's Inspector.
- 4-5 Reinforcing steel bars shall conform to the ASTM Tentative Specifications for the minimum requirements for the deformation of deformed steel bars for concrete reinforcement A305-50T. Steel wire reinforcement to ASTM Specifications A-82-34. All reinforcing steel shall be free from flaws, cracks, mill scale, rust, oil, paint, dirt or foreign material and the contractor shall upon demand furnish a certificate as to the quality.

Heating of bars for bending will not be permitted. Where reinforcing bars require splicing the splices shall not be made at points of maximum stress and all splices shall be staggered. Each splice shall have a length of lap of at least twenty-four (24) times the nominal distance of the bar and in conformity with ASTM specification A.

3-4-50T. Placement of all reinforcing bars must be inspected and approved by the Water District Inspector before placing of concrete.

SECTION 11

DISINFECTION OF WATER LINES

- 11-1 All new lines shall be properly disinfected by the contractor and the cost shall be borne by the contractor and included in the price of installation per foot of pipe.

METHOD

- 11-2 The line shall be disinfected by the contractor and the cost included in the price per foot of laying pipe. All lines and appurtenances shall be disinfected in accordance with AWWA Standard C651. A solution of Calcium Hypochlorite shall be introduced into the line following initial flushing. The solution mixes into the water and checked at various points to make certain it is present throughout the entire line in a strength of 50 ppm or greater. The line then shut down and allowed to stand for a 24 hour period. Tests for residual are then to be taken and if solution to 50 ppm is still present the line flushed in accordance with all existing requirements for disposal of chlorinated water and then filled with water again and bacteria tests taken which must pass all State requirements.

COMPLETION OF DISINFECTION

- 11-3 After the line has been satisfactorily disinfected the water will be thoroughly flushed from the line and tested to make certain the heavily chlorinated water is expelled from the line. This work shall be performed by the contractor at his expense except the valves to supply water into the new line shall be operated by the District's Employees.

SECTION 12

COMPLETION

- 12-1 After satisfactory tests and disinfection of the line the District will accept the line if the tests prove satisfactory and will then begin to serve water through it.

PAYMENT

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- 12-2 ~~Payment will be made to the contractor on an approved (by the District's Engineer) estimate of completed work each 30 days. The estimate will be checked and approved by the District's Engineer and shall be submitted for payment on the first day of each month. The District then shall take up to 30 days to make payment after approval of the estimate.~~

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~~The District shall withhold 10% of the approved estimate price of completed work each time payment is made and final payment will be made 60 days after the contract is completed and final acceptance is made by the District's Engineer and is evidenced in writing. The final payment shall be in full but before it is made the contractor shall supply the District with signed and notarized lien waivers from each supplier of material and from each sub-contractor having expended time or material onto the job. The contractor's performance bond shall then guarantee his work for a period of one year from final acceptance date.~~

SECTION 5 - SERVICE LINES

SERVICE CONNECTIONS

- 5-1 All service connections made to new and existing water mains shall be minimum of 3/4" I.D. in size and shall be made by the use of a standard drilling and tapping machine designed for use on water mains, such as a Mueller B-100 machine on cast iron and the Mueller E-5 machine with proper adapters on steel and A/C. The Mueller E-5 equipped with shell cutter and proper bit on PVC and a cookie retainer. Any machine shall be approved by the Bona Vista Water District before it is used to drill and tap into any water main owned or being built for the Water District. The thread shall be standard iron pipe thread. The corporation stop shall be approved in writing by the Bona Vista Water Imp. District. The tap shall be made so the corporation stop, when screwed into the main, will be flush with the inside wall of the water main and does not extend into the waterway. If service connection is made to pipe other than cast iron a service saddle approved by the District will be required. The District requires a Romac 101N saddle on lines 6" and under and a Romac 202N on lines larger than 6". On steel pipe said saddle shall be installed and shall be wrapped with hot applied tapecoat. Such saddle to be the Romac 202N.

The service line material as used between the main and meter valve shall be American-made type "k" copper tubing. It shall be connected to the corporation stop by a compression fitting and shall be properly cleaned and tightened so the compression nut will tighten to the corporation stop fully and will do so without any leakage of water. The corporation stop shall be made so the corporation stop, when screwed in, will extend out of the main at an angle 30 degrees from vertical. The type "k" copper tubing shall extend out from the corporation stop into a neatly formed loop extending approximately 9 inches above the corporation stop and then neatly formed in an approximate 1/2 circle down to a horizontal line perpendicular from the main and extended to the designated spot for the meter box at a minimum depth of 4 feet below any ground surface under which it is extended.

All meter settings shall be made by use of a setting yoke, equal to Ford Y-502 or Mueller-H5020. The copper service line shall extend from the main to a yoke within the meter box

The street side of the copper setter shall have a meter angle valve with lock wing/lock off device to set the inlet side of the meter. An expansion hand wheel will be required to tighten and adjust. The house or customer side for the setting should be fitted with a double independently acting and approved by the Utah Drinking Water Regulations check valve device which shall be designed to prevent back flow to the public supply. The approved equipment is either Ford HHC 94323G or Mueller H-14245. Said back flow preventor shall be in place of meter angle ell on customer side designed to connect to the meter.

The yoke shall be installed to set with bottom below finish ground level (approx. 18") and sit so supply rises vertically 18" above bottom allowing water meter to be set in the center of the meter box.

Meter box which shall be 36"x18" concrete or corrugated poly shall be furnished and installed set to proper grade with a cast iron ring and cover with lock down lugs and standard pentagon bolt on lock down worm and shall be 4" in height with cover to be flush with final finish grade. Cast iron ring and cover to be comparable in design and quality with DL 2248-020 tapped 2" for use with electronic read out meter with minimum opening of 11 inches on lid. Contractor or owner is responsible to set proper grade and cost of any adjustment shall be responsibility of the contractor and done prior to meter being set

SECTION 6

- 6-1 The trench shall be dug so the pipe can be properly laid to the alignment and depth required. The trench shall be excavated only so far in advance as allowed by the Engineer representing the Water District or by the Inspector representing the Water District. Any surface water shall be pumped out of the trench before pipe is installed so the pipe can be properly installed with dry clean joints and the gasket can be inspected to see that it is properly placed. The surface water shall be pumped out into a drainage channel.

WIDTH OF TRENCH

- 6-2 The width of the trench shall be ample to permit the pipe to be laid and jointed properly and for the backfill to be placed and compacted as specified.

BELL HOLES

- 6-3 Bell holes shall be provided at each joint to permit the jointing to be made properly.

PIPE CLEARANCE IN ROCKS

- 6-4 Ledge rock, boulders, and large stones shall be removed to provide a clearance of at least 5 inches below and on each side of all pipe, valves, and fittings. Payment for this excavation shall be included in the price per lineal feet of excavation and extra compensation shall not be allowed. However, an approved material as approved by the District's Engineer or Inspector shall then be placed in the bottom of the trench in 2 each,

3 inch layers with hand tools and tamped with hand tools to provide a proper bed for the pipe and extra compensation shall be paid for the material if it has to be purchased from a source away from the premises. The compensation shall consist of payment for the material, the price of which will be subject to approval by the District's Inspector and Engineer. If the replacement material can be secured from the material excavated on the job, elsewhere along the trench this will be used and the rate of compensation for this placed properly in the trench shall not exceed \$5.00 per cubic yard placed.

EXCAVATION

- 6-5 The trench shall be excavated to the depth required so as to provide a uniform and continuous bearing and support for the pipe on solid and undisturbed ground at every point between bell holes unless special conditions exist as determined by the District's Engineer or Inspector and he feels it is necessary to excavate below the specified grade, at which time so inform the contractor and payment shall be as specified in paragraph 6-4 of the specifications for the approved material to bring the trench back up to grade and for the labor in so doing. Payment for excavation will be included in price of excavation per lineal foot and extra compensation shall not be paid. The trench shall be excavated so the pipe can be installed in proper alignment as specified in the plans and as staked out on the ground.

All water lines will have a minimum of 4 feet of cover to the top of the pipe.

TRENCH SAFETY

- 6-6 The trench shall be made safe by the contractor at his expense and if shoring and bracing is required he shall install it. All bracing and sheeting shall be removed after the pipe is installed and backfilled to a depth of 6 inches above the pipe. The backfill shall be hand placed to this depth and compacted by hand or mechanical tampers to insure proper support and alignment. All applicable OSHA rules shall apply and contractor shall furnish all required safety equipment.

TRENCHING METHOD

- 6-7 The contractor may use trench digging machinery except for special locations as shown on the drawings where hand methods are required and at locations of pipe blocking which shall be hand excavated.

BLOCKING

- 6-8 Concrete anchors shall be placed at every location where the pipe makes a horizontal or vertical turn in excess of 6 degrees. The blocking shall consist of a properly placed concrete anchor block poured on the side of the pipe receiving thrust and shall be a minimum of 1/4 cubic yard of 6 bag mix concrete and larger blocks, if necessary, as determined by the District's Inspector or Engineer.

The concrete shall be shaped to fit the turn of the pipe and shall extend 225 degrees around the pipe or as close thereto as possible, and shall extend back to the unexcavated walls of the trench to securely brace and support the pipe. Payment for the blocking and the placing shall be included in the price of installing pipe and shall not be paid for separately.

BLASTING

- 6-9 Blasting for excavation will be permitted only after securing approval from the District's Engineer or Inspector and only after all reasonable means of excavation have been tried. The contractor shall take all necessary precautions for the safety of nearby property owners and their property and for all workmen. The blasting shall be at the contractors expense and any damage caused shall be immediately repaired at the expense of the contractor.

CARE OF SURFACE MATERIAL FOR REUSE

- 6-10 All surface materials which, in the opinion of the District's Engineer or Inspector, are suitable for reuse in restoring the surface will be kept separate from the general excavation material.
- 6-11 All excavated material shall be piled in a manner that will not endanger the work and that will avoid obstructing sidewalks and driveways. Hydrants, valve pit covers, valve boxes, water meter boxes, sewer manholes, fire and police call stations, public telephones and other utility controls shall be left unobstructed and accessible until the work is completed. Gutters, irrigation ditches and natural drains and waterways shall be left unobstructed or provision made to temporarily replace them before construction.

PUBLIC SAFETY

- 6-12 The contractor shall be responsible for all permits and inspection by State, County or City ordinances and codes. Adequate barricades, construction signs, torches, red lanterns and guards shall be provided by the contractor at his expense to insure the safety of the public. Flag persons to be certified and approved by D.O.T. and D.O.T. flagging guidelines strictly adhered to.

INTERRUPTION OF SERVICE

- 6-13 No valve or other control on the existing system shall be operated for any purpose by the contractor. The District will operate all valves, hydrants, etc., either with District personnel or under their provision and proper advance notice given.

SECTION 7

HANDLING OF PIPE AND MATERIALS

- 7-1 Proper implements and tools and facilities shall be furnished and supplied by the contractor. All pipes and fittings shall be carefully lowered into trench with suitable equipment and shall be done in such a manner as to prevent damage to pipe and fittings. Under no circumstances shall it be dropped into the trench.

HAMMER TEST

- 7-2 The pipe and fitting shall be inspected for defects and while suspended above grade, be rung with a light hammer to detect cracks in cast iron. A visual inspection shall be made on other types of pipe.

CLEANING PIPE AND FITTINGS

- 7-3 All lumps, blisters and excess coal-tar coating shall be removed from the bell and spigot end of each pipe and the outside of the spigot and inside of the bell shall be wire brushed and wiped clean and dry before pipe is laid. A ball, shaped properly to fit the inside diameter of the pipe shall be pulled through each length of pipe after it is installed by means of a wire to wipe the interior of the pipe and to prevent small animals from crawling into the pipe. At anytime during the shift or duration of the project the pipe shall not be left with an open end unattended. A foolproof end plug shall be placed in the pipe at all times when active installation is not taking place. A tight fitting plug shall be installed each night, before the shift is over to seal the pipeline.

LAYING PIPE

- 7-4 Each length of pipe shall properly be prepared for installation and the joints shall be made immediately after the pipe is lowered into the trench. After the joint is made, suitable backfill materials shall be placed under, around and over the pipe and tamped by means of mechanical or hand tampers. The backfill material shall be placed in 6 inch layers and then tamped. This procedure will continue to a depth of 12 inches or more over the top of the pipe after which layers of 12 inches may be placed and compacted by hand or mechanical tampers until the fill material is within 12 inches of the surface after which it may be pushed in and rolled over for compaction with pneumatic tired equipment.

CUTTING PIPE

- 7-5 The cutting of pipe for inserting valves, fittings, or closure pieces shall be done in a neat and workmanlike manner without damage to the pipe or cement lining and so as to leave a smooth end at right angles to the axis of the pipe. When machine cutting is not available other methods shall be considered by the District's Engineer or Inspector but shall not be used unless approved by him in writing.

PIPE DIRECTIONS

- 7-6 Pipe shall be laid with bell ends facing in the direction of laying unless directed otherwise by the District's Engineer or Inspector.

DEFLECTION

- 7-7 The pipe shall be properly aligned, both in a vertical and horizontal plane and shall be strictly checked for this unless a long radius curve is shown and properly designed and laid out at which time no more than 3 degrees deflection shall be allowed and shall be checked and approved by the District's Engineer or Inspector. These specifications make special emphasis on the 3 degree limitation so please make note.

CONDITIONS

- 7-8 No pipe shall be laid in water or when, in the opinion of the District's Engineer or Inspector the trench conditions are unsuitable.

SECTION 8

HYDRANTS

- 8-1 Hydrants shall be located as shown on the drawings and shall be set so that no portion of the hydrant shall be within 12 inches of any sidewalk, curb or other obstruction.
- 8-2 All hydrants shall be set so they stand plumb and match the established grade at the ground level flange. Nozzles shall face the street as directed by the District's Engineer or Inspector.

HYDRANT DRAINAGE

- 8-3 All hydrants shall have at least 1/4 cubic yards of 1 1/4 inch washed rock placed under the drainage outlet on the bottom. The hydrant shall rest on a piece of concrete 18" x 6" and shall be carefully set so the drain water will splash onto the concrete and then drain into the gravel which will be over, under, and around the piece of concrete. The gravel will be covered with 4 inches of straw, or wild hay to prevent the cover soil from penetrating into the gravel.

HYDRANT BLOCKING

- 8-4 Each hydrant shall have a concrete anchor block consisting of a mix not leaner than 1 cement, 2 1/2 sand and 5 stone poured directly behind the point where the supply pipe connects to the hydrant. The block shall be formed to fit the barrel or bowl of the hydrant firmly and extend to the back of the trench to be supported by unexcavated earth which shall be solid and firm.

UNDERGROUND VALVES-HYDRANT AUXILIARY & REGULATORS

- 8-5 All valves shall be as specified in Paragraph 4-1 and valve boxes as specified in Paragraph 4-2 of these specifications. They shall be located as shown on the drawings and shall have the valve boxes set over them in a manner which will not cause stress on the valve. The cover shall be flush with the established grade and shall be tested to make sure a valve key fits into them plumb and squarely into the operating nut of the valve.

HYDRANT SIZE

- 8-6 No hydrants larger than 4 inch with 2 each 2 ½ inch nozzles shall be allowed on lines smaller than 8 inch diameter with no exceptions.

SECTION 9

BACKFILL

- 9-1 All pipe and fittings shall be backfilled to a point 12 inches above the pipe by hand. The fill material shall be placed in by hand tools in 6 inch layers and compacted by mechanical or hand tools. The fill material must be free of rocks or hard materials over 1 ½ inches in diameter for an area of 12 inches, (the maximum rock size is ¾" for plastic pipe) both over and under and on each side of the pipe. The material from a point 12 inches above the pipe may be placed in 12 inch layers and compacted until the fill reaches a point in 12 inches below the established grade after which it may be pushed in by machine and compacted by rolling over it with pneumatic tires on the machine used for backfilling.

MACHINERY

- 9-2 The machinery used for backfill must be a pneumatic tired machine where it must operate on or adjacent to an existing surfaced (asphalt-concrete-turf) road or area. On street crossings, proper tamping machines must be used to achieve proper density of backfill.

RESURFACING

- 9-3 Any finished surface such as concrete, asphalt, turf or gravel must be restored to its original condition by the contractor at his own expense after the pipe is installed and backfill completed. This shall be paid for in price of installation per foot of pipe and it shall be the contractors responsibility to determine the extent of the resurfacing work before the job commences. The contractor must construct resurfacing to the approval of D.O.T., Weber County, or any city within the District. It shall be contractor's responsibility to know amount of resurfacing and agency requirements and payment shall be included in price per foot of piping installed.

SECTION 10

HYDROSTATIC TESTS

- 10-1 After the pipe has been laid and backfilled it shall be tested. All pipe laid shall be subjected to a hydrostatic test for a period of 2 hours. The gage pressure shall read at least 175 psi at the beginning of the test and shall not lose over 3 psi per mile of pipe in the 2 hour period. If there are service lines on the project section these shall also be included in this test.

METHOD OF TEST

- 10-2 The line shall first be flushed under inspection of the District Engineer or Inspector. Each valved section shall slowly be filled with water and the specified test pressure. The pressure shall be applied to the pipe line after it is filled with water by a pump to be supplied by the contractor which is connected to the pipeline in a manner satisfactory to the District's Engineer or Inspector. Satisfactory gages shall be furnished by the contractor and shall be located on the pipeline as directed by the District's Engineer or Inspector but the number of gages required shall not exceed 4 per mile of pipeline. The gages will be placed on the line by the contractor. All necessary apparatus for making the test shall be furnished and installed by the contractor. There will be no additional payment for this as the cost of the test shall be a part of price of installation of pipe per foot. Any repairs necessary after the test shall be made by the contractor, at his expense. After the test pressure is reached an inspection of the line will be made and any part of the work which does not satisfactorily meet with the District's Engineer or Inspector shall be repeated until satisfactory to the District's Engineer or Inspector.

LEAKAGE TEST

- 10-3 A leakage test shall be conducted along with the pressure test. All necessary equipment for the test shall be furnished and installed by the contractor. Payment shall be included in price of installation per foot and extra payment shall not be made. No pipe installation shall be accepted if the leakage exceeds an amount determined as follows: A formula with L=leakage in gallons, N=number of joints, D=diameter in inches, P=test pressure,

$$L = \frac{ND}{1850} P$$

After testing the line water shall be pumped into the section tested and if the amount required to refill the line exceeds that determined by this formula the line will not be accepted. Any repairs necessary shall be made by the contractor and the line shall be tested until satisfactory and accepted by the District's Engineer or Inspector.

1-B FIRE HYDRANTS

1B 1.01 SECTION INCLUDES

Installation of piping, hydrants, valves and other accessories.

2B 1.02 REFERENCES

- A. AWWA C110: American National Standard for Ductile-Iron and Gray-Iron fittings, 3 inches through 48 inches for water and other liquids.
- B. AWWA C111: American National Standard for Rubber-Gasket Joints for Ductile-Iron and Gray-Iron pressure pipe and fittings.
- C. AWWA C502: AWWA Standard for Dry-Barrell fire hydrants.
- D. AWWA M17: AWWA Manual for installation, operation, and maintenance of fire hydrants.

1B 1.03 PRODUCT HANDLING

- A. Package fire hydrants, gate valves, and valve boxes for protection against dirt and damage during shipment and storage.
- B. Handle to prevent contamination, or drain hole plugging.

1B 1.04 SUBMITTALS

- A. Product Data: Manufacturer's technical product data and installation instructions for valves and hydrants.

1B 2.01 MATERIALS FOR HYDRANTS

- A. In accordance with AWWA C502 and pattern approved by owner.

1B 2.02 HYDRANT END CONNECTIONS

- A. Mechanical joint or flanged in accordance with AWWA C110, and AWWA C111.

1B 2.03 HYDRANT DIMENSIONS

- A. Cast-Iron Body Fire Hydrant: Compression type, opening against pressure and closing with pressure, base valve design, 150 psi working pressure, with 1/4" diameter minimum tapping and bronze plug in standpipe.
 - 1. Size: 5-1/4" valve opening.
 - 2. Direction to Open Hydrant: Left
 - 3. Size and Shape of Operating and Cap Nuts: Pentagon 1-1 1/2 inch point to flat.
 - 4. Hose Nozzles: Two 2 1/2 inch National Standard thread, cap, gasket, and chain.
 - 5. Pumper Nozzles: One 4 1/2 inch National Standard thread, cap, gasket, chain.
 - 6. Depth of Trench: 5' 0" unless indicated otherwise.
 - 7. Connection to Main: 6" mechanical joint.
 - 8. Pressure: Designed for a working pressure of 175 psi and a hydrostatic pressure of 350 psi.
 - 9. Bottom Connection: 6" flanged, designed to allow the flanges at the sidewalk level to separate when hydrant is sheared off.
 - 10. Automatic Drain: opens as the hydrant is closed.

1B 2.04 PIPE

- A. Ductile iron, in accordance with Section 15062.

1B 2.05 VALVES

- A. Unless indicated otherwise, furnish an auxiliary 6" diameter valve with flange by mechanical joint and connections. Refer to Section 15110 for additional requirements.

1B 2.06 NUTS, BOLTS, ACCESSORIES

- A. In accordance with Section 05070 Utah Public Works requirements.
- B. Anchorages: Provide anchorages for tees, wyes, crosses, plugs, caps, bends, valves, and hydrants. After installation, apply full coat of asphalt or other acceptable corrosion-retarding material to surfaces of ferrous anchorages.
- C. Thrust blocks: Concrete class 3000 minimum, in accordance with Section 03304.
- D. Valve box, Adj. Cast Iron.

1B 3.01 INSTALLATION

- A. Coordinate with Engineer to furnish hydrants of the same manufacturer and model presently used by water utility company.
- B. Install hydrants, valves, and valve boxes as indicated and in accordance with Awwa M17.

C. Unless indicated otherwise, paint hydrant bodies chrome yellow.

D. Paint tops and nozzle caps as follows:

1. Green: Class A. Hydrants (Flow capacity 1000 gpm or greater)
2. Orange: Class B hydrants (Flow capacity 500 to 1000 gpm)
3. Red: Class C hydrants (Flow capacity less than 500 gpm)

****** When initial pressures are over 40 psig at the hydrant under test, the rating is to be based upon 70 psig residual pressure in the main. When initial pressures are less than 40 psig, residual pressure in the main shall be at least half of the initial. For flow capacity determinations refer to AWWA M17.

1B 3.02 FIELD QUALITY CONTROL

- A. Conduct piping tests before joints are covered, and after thrust blocks have sufficiently hardened. Refer to Section 01680. Fill pipeline with water 24 hours prior to testing, and apply test pressure to stabilize hydrant system.
- B. Test at pressures not less than 200 psi for 2 hours, or at 50 psi above maximum static pressure if it is greater than 150 psi. Comply with Section 01680 requirements.

END OF SECTION

FLOW TESTS

We will run flow tests on request for a fee of \$60.00 per test plus cost of water.

The water flow will be calculated based on Pitot reading and measured time of flow at the rate of \$4.00 per 1000 gallons.

All hydrants are checked for mechanical problems and also flow tested one time each year at District expense.

Any tests requested in addition to this annual testing and certification must be scheduled and fee's paid.

END OF ATTACHMENT

ATTACHMENT B
OF
SPECIAL PROVISION SECTION 02079 S
PLEASANT VIEW CITY WATER SYSTEM REQUIREMENTS

The information included in Section 02079 S - Attachment B, Pleasant View City Water System Requirements is provided for the convenience of the Contractor. It is the Contractor's responsibility to obtain and comply with the requirements of the Pleasant View City Water System standards.

SECTION 13
CULINARY WATER SYSTEM

PART 1 GENERAL

13.1.01 WORK INCLUDED

- A. Inspection
- B. Preparation
- C. Water pipe installation
- D. Valve and fitting installation
- E. Thrust block installation
- F. Corrosion protection
- G. Field quality control
- H. Metered Services
- I. Pressure Reducing Stations
- J. Fire Hydrants
- K. Fire Lines
- L. General

1. The work to be done consists of furnishing all necessary labor, materials and equipment to provide complete installation and testing of water system facilities. Modifications to existing facilities shall confirm to Pleasant View City specifications.
2. The construction of water mains shall include: excavation, backfill and compaction, construction of concrete structures, anchors, thrust blocks, supports, encasements; furnishing, installation, testing and disinfecting water pipelines, fittings, valves, blow offs, air valves, services, fire hydrants, and all appurtenances; removal and restoration of existing improvements and all work in accordance with the project plans and specifications.

M. Unacceptable Work

1. Unacceptable work as determined by Pleasant View City whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner at the contractor's expense.

13.1.02 RELATED WORK

- A. Regulations for Excavation on Pleasant View City Rights-of-Way – Section 2
- B. Excavation and Backfill for Pipelines – Section 6
- C. Disinfection of Water Distribution Systems – Section 14

13.1.03 QUALITY ASSURANCE

- A. Comply with federal, state, and local codes and regulations. Underground piping pressure testing shall be witnessed by the Pleasant View City Engineer or a designated City representative.
- B. Pipe, valve and appurtenance materials and workmanship shall be in accordance with AWWA Standards or other standards as specified herein.

13.1.04 REFERENCES

- A. American Water Works Association (AWWA)
 1. C105, "Polyethylene Encasement for Gray and Ductile Cast-Iron Piping for Water and Other Liquids."
 2. C111, "Rubber-Gasket Joints for Ductile-Iron and Gray-Iron pressure Pipe and Fittings."
 3. C151, "Ductile-Iron Pipe, Centrifugally Cast in Metal Molds or Sand-Lined Molds, for Water or Other Liquids."
 4. C504, "Rubber-Seated Butterfly Valves."
 5. C509, "Resilient-Seated Gate Valves for Water and Sewer Systems."
 6. C600, "installation of Gray and Ductile Cast-Iron Water Mains and Appurtenances."
- B. American Society for Testing and Materials (ASTM):
 1. A-126: For valve bodies.

13.1.05 SUBMITTALS

- A. Submit manufacturer's specifications for all products to Pleasant View City for approval.

13.1.06 DELIVERY, STORAGE, AND HANDLING

- A. Load and unload pipe, fittings valves, and accessories by lifting with hoists or skidding so as to avoid shock or damage. Do not skid or roll pipe on skid ways against pipe already on the ground.
- B. Each length of pipe shall be unloaded opposite or near the place where it is to be laid in the trench.
- C. At times when pipe laying is not in progress, the open ends of the pipe shall be closed by a watertight plug or other means approved by Pleasant View City.

PART 2 PRODUCTS

13.2.01 DUCTILE IRON PIPE

A. Buried Applications

- 1. Standard: AWWA C151.
- 2. Pressure Rating (class) - Pipe Diameters 4" to 12" shall be thickness Class 50, Pipe Diameters 14" and larger shall be pressure Class 250 p.s.i.
- 3. Cement lined and bituminous coated in accordance with AWWA C104.
- 4. Rubber gasketed slip-on pipe joints in accordance with AWWA C111.
- 5. Class 250 p.s.i. mechanical joint fittings in accordance with AWWA C110.
- 6. Standard: NSF 61 - Drinking Water System Components - Health Effects.

B. Above Ground Applications

- 1. Same as below ground except joints and fittings to be flanged in accordance with AWWA C115.
- 2. Gaskets to be full faced, 1/16th inch thick rubber.

13.2.02 ACCESSORIES

- A. Nuts and Bolts as required.
- B. Gaskets to be 1/16th inch full face rubber.
- C. 8 mil. polyethylene wrap in accordance with AWWA C105.

13.2.03 CORROSION PROTECTION

- A. Bolts: Apply 2 coats of no oxide wax to all exposed surfaces of bolts and to all bolt threads after installation of piping, fittings, valves, and couplings.
- B. Encase all buried ductile iron valves, fittings, connections and specialties in minimum 8 mil. polyethylene sheets in accordance with AWWA C-105. Duct tape shall be

used to secure polyethylene sheets to the pipe.

- C. Encase buried ductile iron pipe in minimum 8 mil. polyethylene sheets in accordance with AWWA C-105 in selected areas and soil types which required corrosion protection as approved and directed by the City Engineer.

13.2.04 VALVES

A. Gate valves (8" and smaller):

1. Cast Iron Body, Bronze Mounted: Furnish resilient-seated gate valves 3 inches through 8 inches that conform to the requirements of AWWA C509, non-rising stem design with "O" ring seals.
2. Operating Directions: Open counterclockwise.
3. Buried Valves: Flanged, mechanical joint, or as indicated.

B. Tapping valves and sleeves:

1. Tapping valves shall have large diameter seat rings to permit entry of tapping machine cutters. Inlet shall be flanged. Outlet shall suit branch piping and shall include the required flange for tapping machine adapter connection. In other details, tapping valves shall conform to the requirements outlined for gate valves in Paragraph 13.2.06 A.
2. Tapping sleeves shall be suitable for assembly around the existing main. Body shall be high strength ribbed construction. End gaskets shall be sized to suit the existing main, and the seals between the pipe and the gaskets shall be formed around the perimeter of the pipe.
3. Tapping valves and sleeves shall be split cast iron or stainless steel fully gasketed.

C. Butterfly valves (12" and larger):

1. Shall comply with the requirements of AWWA C504, Class 150 B.
2. Valve bodies shall be cast in conformance to ASTM A126, Class B. Ends shall be flanged unless otherwise specified.
3. Valve discs shall be streamlined and shall have a continuous 360 sealing surface of stainless steel, ASTM A276, type 304.
4. Valve shafts shall be stainless steel ASTM A276, type 304, of stub construction with at least 1½ shaft diameter engagement into the disc and shall be fastened to the disc with upset pins.

5. Valve seats shall be of Buna N material bonded to the valve body.
6. Valve bearings shall be self lubricating and non-corrosive and shall have a significant difference in hardness from the valve shaft.
7. Valve actuators shall be designed as an integral part of the valve and shall meet all the requirements of AWWA C504. All actuators shall be hermetically sealed and permanently lubricated with no exposed moving parts. All manual actuators will meet the requirements of AWWA C504 for nut input.

13.2.05 VALVE BOXES

- A. Shall be suitable for HS-20 traffic loading.
- B. Shall be furnished and installed over each line valve and over each auxiliary hydrant valve. All buried valves shall be installed complete with a Tyler 564A slip valve box or approved equivalent. Valves over 5' in depth shall have a valve nut extension stem installed.

13.2.06 FITTINGS

- A. Mechanical joint:
 1. Mechanical joint fittings shall be cast iron class 250 and shall conform to AWWA C-110 and C-111. Mechanical joint fittings shall be coated with a petroleum asphaltic coating 1 mil thick.
- B. Flanged fittings:
 1. Flanged fittings shall conform to AWWA C-110 and C-111 Cast-Iron Fittings. Flanges shall be faced and drilled and shall be Class 250. Flanged fittings shall be coated with a petroleum asphaltic coating 1 mil thick.

13.2.07 METERED SERVICES

- A. 3/4" and 1" Service Laterals (see Standard Details):
 1. All supplies, labor, machinery, etc. will be supplied by the contractor. Pleasant View City will supply and set the meter only on 3/4" connections. The contractor shall supply meters for connections greater than 3/4".
 2. All connections must be made with compression copper fittings made of brass.
 3. Brass corporation stops Mueller B-25008 or equivalent. Tap directly into the main. All corps shall be CC thread.
 4. Type K soft drawn copper pipe installed as one solid piece from main to meter.

5. 18" meter yokes. Mueller H-1434-6A or equivalent (copper or brass).
6. Meter Boxes: 18" or 21" diameter concrete meter box as approved by the City.
7. 18" or 21" cast iron ring and lid with locking nut (D&L Supply L-2240, L-2242 or City approved equal).

B. 1½ " and 2" Service Laterals (see Standard Details):

1. All supplies, labor, machinery, etc. will be provided by the contractor. Pleasant View City does not provide or set the meter if it exceeds 3/4" in size.
2. Type K soft drawn copper pipe installed as one solid piece from main to meter.
3. Copper or brass screw type fittings (ball valves, strainers, nipples, tees, bends, etc.).
4. The water meter shall be approved by the Pleasant View City Water Superintendent and shall accurately read flows down to 2 gpm.
5. Meter vault is to consist of a 5 foot diameter precast concrete manhole with flat lid and 30" ring and cover suitable for HS-20 traffic loading (D&L Supply 1181 or City approved equal).
6. Meter vault is to have solid concrete floor with a floor drain if a gravity drain is available.

C. 3" Service Laterals (see Standard Details):

1. Where possible flanged fittings should be substituted for screw on type fittings.
2. The water meter shall be approved by the Pleasant View City Water Superintendent and shall accurately read flows down to 2 gpm.
3. Meter Vault to have solid concrete floor, gravity drain (if available) and personnel access manhole and steps. See Pleasant View City Standard Details.
4. A bypass line is required as indicated in the Standard Details.
5. Floor supports as indicated

D. 4" and Larger Service Laterals (see Standard Details):

1. Ductile iron pipe.
2. Cast iron, flanged gate valves and fittings.

3. Concrete meter vault with cast iron lid, concrete floor, gravity drain line and personnel access manhole and steps.
4. The water meter shall be approved by the Pleasant View City Water Superintendent and shall accurately read flows as low as 2 gpm.
5. Floor supports as indicated.
6. A bypass line is required as indicated in the Standard Details.
- E. The design of water meters larger than 4" are to be approved by the Pleasant View City Water Superintendent and the City Engineer.
- F. All service laterals are to have 48 inches min. cover and are to be installed using one seamless section of pipe from the water main to the meter.

13.2.08 PRESSURE REDUCING VALVE STATIONS (see Standard Details)

- A. All pressure reducing valves (PRV) shall be "Clayton" or "Ames" brand Pressure Reducing and Sustaining Valves as shown on the Standard Drawings. Specific brand name to be installed for each specific installation shall be directed by the City Engineer.
- B. All PRV stations because of the weight of the combined fittings, must have support blocks for support. Supports shall be screw jack type and shall not restrict access to any of the bolts.
- C. On PRV's over 6", Pleasant View City may determine that a low flow PRV in excess of 2" is required.
- D. Vault:
 1. Vault shall have a concrete floor with an 18" concrete pipe sump. The pipe sump shall be located near the access lid and the floor shall slope towards the sump (2% slope minimum).
 2. Interior dimensions of the vault shall be 6'-6" (height) x 12'-0" (length) x 6'-0" (width). There shall be a minimum of 6'-6" clearance between the floor and ceiling of the vault.
 3. Vault shall have two access lids:
 - a. A 36" diameter clear opening manhole ring and lid shall be centered over the PRV to provide easy access for possible removal. Ring and lid shall be D&L Supply A-1460 or equivalent.
 - b. A 24" diameter clear opening manhole ring and lid shall be located at a corner of the vault. Ring and lid shall be D&L Supply A-1181 or

equivalent. All access lids (personnel lids) must be accompanied by ladder either poured into or securely fastened to the vault wall. All ladders will have rungs not farther than 1 foot apart. Steps poured into the vault wall shall be rubber coated as are found in pre-poured sewer cones and sections. Ladders fastened to the walls shall have lag bolts connections as shown on the plans.

- c. The vault shall have min. 8" thick walls. Wall and roof shall have steel reinforcement designed for HS-20 traffic loading.
- d. All piping which penetrates wall sections shall have "Romac" MJRG retainer glands and 24" square steel plate for thrust restraint on each side of the wall opening as detailed on the drawing.

4. See Standard Details for PRV general specification details.

13.2.09 FIRE HYDRANTS (See Standard Details)

- A. All fire hydrants shall be red in color and shall be one of the following 6" compression type hydrants:
 - 1. Mueller Centurion
 - 2. Clow Medallion
- B. Auxiliary valve shall be flanged to main line and shall be complete with valve box.
- C. Gravel for sump.
- D. Concrete for blocking and setting hydrant (Mega-lug connections utilized to replace concrete blocking is acceptable with the prior authorization of the City).
- E. All hydrants shall conform to AWWA Specifications C-502.
- F. Hydrant shall be equipped with two 2½" hose nozzles and one 4½" nozzle, and nozzles shall have the national standard threading.
- G. Each hydrant shall be supplied with O-ring seals and a national standard pentagon operating nut designed for clockwise rotating closing.
- H. Auxiliary valve shall conform to Pleasant View City Specification for gate valves. The water line from the main to the hydrant shall be 6" minimum.
- I. Blocking shall conform to Pleasant View City Specifications for thrust blocking.

13.2.10 FIRE SPRINKLER/SUPPRESSION LINES

- A. All fire lines must be equipped with a gate valve. The valve shall be flanged to the main line and shall conform to Pleasant View specifications for gate valves.
- B. All fire lines shall be ductile iron pipe, thickness class 50 or as shown on the City

approved site plans. Fire lines shall meet Pleasant View City's specifications for main lines.

- C. Fire line locations shall be approved by Pleasant View City.
- D. Notify Pleasant View City Water Inspector 48 hours prior to installation.
- E. Unless written authorization is given by Pleasant View City, no services shall be connected to the fire sprinkler/suppression lines.

PART 3 EXECUTION

13.3.01 INSPECTION

- A. All pipe fittings, valves and other appurtenances shall be examined by Contractor carefully for damage and other defects immediately before installation.
- B. Defective material shall be marked and held for inspection by the Pleasant View City Engineer, who may prescribe corrective repairs or reject the materials.
- C. Prior to installation, valves shall be inspected for direction of opening, freedom of operation, tightness of press-containing bolting, cleanliness of valve ports and sealing surfaces, handling damage, and cracks. Defective valves shall be corrected or held for inspection by the Pleasant View City Engineer.

13.3.02 PREPARATION

- A. Furnish temporary support, adequate protection, and maintenance of all underground and surface structures, drains, sewers, and other obstructions encountered in the progress of the work.
- B. The trench bottom and pipe bedding surfaces shall be prepared in accordance with the approved plans, the excavation and backfill specifications in the Pleasant View City Public Works and The Regulations for Excavation on Pleasant View City Rights-of-Way prior to pipe installation.
- C. All lumps, blisters, and excess coating shall be removed from the socket and plain ends of each pipe, and the outside of the plain end and the inside of the bell shall be wiped clean and dry and be free from dirt, sand, grit or any foreign material before the pipe is laid. Bevel and file plain end of pipe to prevent gasket damage during joint assembly.
- D. Proper implements, tools, and facilities shall be provided and used for the safe and convenient performance of the work. All pipe, fittings, and valves shall be lowered carefully into the trench by means of a derrick, ropes, or other suitable tools or equipment, in such a manner as to prevent damage to water-main materials and

protective coatings and linings. Under no circumstances shall water system materials be dropped or dumped into the trench.

13.3.03 WATER PIPE INSTALLATION

- A. The water pipe shall be laid and maintained to lines and grades established by the drawings and specifications with fittings and valves at the required locations unless otherwise approved by Pleasant View City. Unless otherwise shown, all water lines shall have 4.0' minimum cover to final finish grade. All main lines are to be located 10' off the street centerline as shown on City approved drawings unless otherwise specified. All valves and fire hydrants are to be installed as noted on the approved plans.
- B. When crossing existing pipelines or other structures, alignment and grade shall be adjusted as necessary, with the approval of the Pleasant View City Engineer to provide clearance as required by federal, state or local regulations or as deemed necessary by Pleasant View City to prevent further damage or contamination of either structure.
- C. Lay all water lines on a continuous grade to avoid high points except as shown on the plans.
- D. Prevent foreign material from entering the pipe while it is being placed in the trench. During laying operations, no debris, tools, clothing, or other materials shall be placed in the pipe. If the pipe-laying crew cannot put the pipe into the trench and in place without getting earth into it, the Engineer may require that, before lowering the pipe into the trench, a heavy, tightly woven canvas bag of suitable size shall be placed over each end and left there until the connection is to be made to the adjacent pipe.
- E. As each length of pipe is placed in the trench, the joint shall be assembled in accordance with manufacture's recommendations.
- F. The pipe shall be brought to correct lien and grade, and shall be secured in place with approved backfill material in accordance with the Pleasant View City public Works Standards.
- G. Wherever it is necessary to deflect pipe from a straight line, either in the vertical or horizontal plane, to avoid obstructions or plumb stems or where long-radius curves are permitted, the amount of deflection allowed shall not exceed that recommended by pipe manufacturer and shall be approved by the Pleasant View City Engineer.
- H. At times when pipe laying is not in progress, the open ends of pipe shall be closed by a watertight plug or other means approved by Pleasant View City. When practical, the plug shall remain in place until the trench is pumped completely dry. Care must be taken to prevent pipe flotation should the trench fill with water.

- I. Cutting pipe for the insertion of valves, fittings, or closure pieces shall be done in a neat, workmanlike manner without creating damage to the pipe or lining.
- J. Cut ends and rough edges shall be round smooth. For push-on joint connections, the cut end shall be beveled.
- K. Whenever possible, all tie-ins will be made dry. Pleasant View City shall turn off the water upon 48 hours minimum advance notice by the contractor. It shall be the contractor's responsibility to advise all affected water users of the interrupted service a minimum of 24 hours prior to any service interruption. In large areas where there is heavy use, where shutting down the line is not feasible in the opinion of the Pleasant View City Engineer, the contractor shall be required to tie onto the main by using a wet tap.
- L. All dead ends shall be plugged complete with a 2" wash out assembly (see Standard Details).

13.3.04 VALVE AND FITTING INSTALLATION

- A. Valves shall be as located on Pleasant View City Standard Details.
- B. Valve-operating stems shall be oriented in a manner to allow proper operation.
- C. A valve box shall be provided for every valve that has no gearing or operating mechanism or in which the gearing or operating mechanism is fully protected with a gear case. The valve box shall not transmit shock or stress to the valve and shall be centered over the operating nut of the valve, with the box cover flush with the surface of the finished area or such other level as may be directed by the owner. In paved areas, a concrete collar around the valve box is required.
- D. In no case shall valves be used to bring misaligned pipe into alignment during installation. Pipe shall be supported in such a manner as to prevent stress on the valve.

13.3.05 THRUST BLOCK INSTALLATION

- A. Thrust blocks shall be provided at reducers, valves, tees, plugs, and caps, and at bends deflecting 22-1/2 degrees or more. 11-1/2 degree pipe bends shall be installed with approved ductile iron retainer glands.
- B. Thrust block shall be placed between solid ground and the fitting to be anchored; the area of bearing on the pipe and on the ground in each instance shall be that shown on the drawings. The block shall, unless otherwise shown or directed, be so located as to contain the resultant thrust force and so that the pipe and fitting joints will be accessible for repair. Concrete shall not be located within 1½" of the joints and bolts.

- C. Concrete for thrust blocks shall have a compressive strength of not less than 2500 p.s.i. in 28 days.
- D. Care shall be taken to not pour concrete around bolts.
- E. Refer to Standard Details for thrust block details.

13.3.06 CORROSION PROTECTION

- A. Bolts: Apply 2 coats of no oxide wax to all exposed surfaces of bolts and to all bolt threads after installation of piping, fittings, valves, and couplings.
- B. Encase all buried ductile iron valves, fittings, connections, and specialties in minimum 8 mil. polyethylene sheets in accordance with AWWA C-105.
- C. In areas where corrosive soils may be present, all buried ductile iron pipe is to be poly-wrapped in accordance with AWWA C-105. The Pleasant View City Engineer will designate areas where an appropriate soils analysis is required to determine soil characteristics. Contractor shall bare the expense for soils analysis.

13.3.07 3/4" AND 1" SERVICE LATERALS

- A. Laterals shall be installed prior to the construction of concrete curb and gutter. The contractor shall be responsible to have sufficient elevation controls at the construction site to set water meter boxes at the City approved finish grades.
- B. All meters shall be located between the curb and the sidewalk unless approved otherwise by the Pleasant View City Engineer.
- C. Corporation stops shall be tapped at 45 degree angles unless approved otherwise by the Pleasant View City Engineer. The installer should firmly compact dirt around and under the corporation stop and copper loop.
- D. Type K soft drawn copper shall be connected to the top of the water main at a 45 degree angle by using a brass nut and a compression fitting on the end of the copper. All tubing shall be cut straight.
- E. A small loop (goose neck) of excess copper must be put in the copper tubing to accommodate for settlement that may occur (see Standard Details).
- F. All laterals must be of one continuous copper tube between the corp stop and the meter box. No joints or copper to copper connectors will be allowed.
- G. All laterals shall have a minimum of 48" cover from top of copper tubing to finished grade.
- H. All yokes shall be 18" Mueller H-1434-6A or approved equivalent and are to be connected to the service line by use of Mueller compression fittings or equivalent.

- I. From the top of the lid (cast iron) to shut off valve on the yoke, there must be a distance of not less than 18" or more than 24". No meter will be set if this or any other specification is not met.
- J. All pig-tails will be type K soft drawn copper pipe and will be stubbed into the property a minimum of 5'.
- K. All meter boxes shall be centered squarely over the yoke to provide access to the connection nuts on the bottom of the yoke. Meter box interior shall be kept clear of dirt so that connecting nuts are visible.
- L. All meter boxes will be installed so the lid of the meter box will be level with the adjacent curb after any settlement has occurred.
- M. See Standard Details for typical installation detail.
- N. Precautions should be used to prevent any foreign materials from entering the pipe. All pig-tails will be mashed on the end which is stubbed into the property. Contractor will make every effort to ensure that no kinks or restrictions occur in the copper service.
- O. Copper laterals may, at the discretion of the Pleasant View City Engineer, be required to be bedded in sand. If sand bedding is required a minimum of 6" below and 6" above where the pipe shall be placed.

13.3.08 1½" AND 2" SERVICE LATERALS

- A. Meter vaults shall have a solid concrete floor. If gravity drain is available, a drain should be installed in the bottom of the vault and piped to drain.
- B. The meter shall be a minimum of 36" and a maximum of 42" from the top of the vault (see Standard Details). In cases where the main water line is deeper, the service lateral will be raised to conform to this specification.
- C. A bypass shall be installed on the metered line.
- D. All solder joints shall be of 95-5 solder or better or Mueller compression fittings.
- E. The area where the pipe comes into and out of the vault shall be grouted to prevent debris from washing into the box.
- F. No sprinkler systems shall be tied into a culinary water service lateral.
- G. When subject to traffic, the box must be designed for HS-20 traffic loading and be equipped with an appropriate cover approved by the City Engineer.
- H. 1½" and 2" taps to the main line shall be made with a saddle. Saddles shall be stainless steel and shall consist of two straps which hold the saddle to the main. On

1½" and 2" taps only, a compression type corporation stop is acceptable. Saddle is to be wrapped in polyethylene.

- I. See Detail drawings for typical meter installation detail.

13.3.9 3" AND LARGER SERVICE LATERALS

- A. Meter vaults shall have a solid concrete floor. If gravity drain is available, a drain should be installed in the bottom of the vault and piped to drain.
- B. In case of extreme depth (over 36") a ladder shall be poured into or securely fastened to the vault wall. The access lid shall be moved so that it is centered over the ladder.
- C. The bypass shall be the same size as the metered line.
- D. No sprinkler systems shall be tied into a culinary water service lateral.
- E. When subject to traffic, the box must be designed for HS-20 traffic loading and be equipped with an appropriate lid approved by the City Engineer.
- F. The meter vault shall be poured so that 12" minimum clearance exists between all sides of the vault and the piping.
- G. See Detail drawings for typical installation detail.

13.3.10 FIRE HYDRANT INSTALLATION.

- A. The trench for the hydrant shall be slightly over excavated to provide a 1 cubic yard of 1-1/2" gravel sump and set on concrete slab as shown on the drawings.
- B. Concrete thrust blocking shall be set behind the hydrant for support.
- C. The drain holes shall not be covered by the concrete blocking.
- D. All hydrants shall be level both at the side and at the back.
- E. All hydrants shall be turned on after installation and inspected by Pleasant View City Water Department and Fire Marshall for proper operation.
- F. See Detail drawings for Fire Hydrant Connection detail.

13.3.11 FIELD QUALITY CONTROL

- A. Temporary connections for pressure testing shall be made by the Contractor at his expense and removed by him after the satisfactory completion of the testing work.

B. Pressure Test:

1. After completion of the installation of the system, (including water mains and all service laterals) or any reasonable length thereof, and after thorough flushing of the portion to be tested, pressure tests shall be made. The system to be tested shall be subjected to a hydrostatic pressure of 225 pounds per square inch, following AWWA C600-93 procedures, unless otherwise noted on the drawings, for a period of not less than 2 hours duration with no drop in pressure.
2. The portion to be tested shall be filled with water slowly and the specified test pressure shall be applied by means of a pump connected to the pipe in a manner satisfactory to the Pleasant View City Engineer. The Contractor shall make the temporary connection for pressure testing.
3. Before applying the specified test pressure, air shall be expelled completely from the pipe, valves, and hydrants. If permanent air vents are not located at all high points, the contractor shall install corporation stops at such points so that the air can be expelled as the line is filling with water. After all the air has been expelled, the corporation cocks shall be closed and the test pressure applied. At the conclusion of the pressure test, the corporation cocks shall be removed and plugged by the Contractor with a brass plug.
4. All exposed pipe, fittings, valves, hydrants, and joints shall be examined carefully during the test. Any damage or defective pipe, fittings, valves, or hydrants that are discovered following the pressure test shall be repaired or replaced with sound material and the test shall be repeated until it is satisfactory to the Pleasant View City Engineer, at no cost to the Owner.

C. Leakage Test:

1. A leakage test shall be conducted concurrently with the pressure test, following AWWA C600-93 procedures.
2. Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof, to maintain pressure within 5 p.s.i. of the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water.
3. Maximum leakage during the pressure test shall not exceed one gallon per inch diameter per 1000 feet of pipe.
4. Acceptance of installation shall be determined on the basis of allowable leakage. If any test of pipe laid discloses leakage greater than that specified above, the contractor shall, at his own expense, locate and repair the defective material until the leakage is within the specified allowance.
5. All visible leaks, other than a minor amount of sweating, shall require immediate stoppage of the test and tightening of the joints so that, when pressure is again put

on the system, there will be no leakage.

D. Disinfection of Water Distributing Systems:

1. Refer to Section 14.

13.03.12 CROSS CONNECTION CONTROL AND BACKFLOW PREVENTION

- A. It shall be unlawful at any place supplied with water from the Pleasant View City Water Distribution System to do any of the following:
1. To install after written notification from Pleasant View City Water System Superintendent or use any physical connection or arrangement of piping or fixtures which may allow any fluid or substance not suitable for human consumption to come in contact with potable water in the Pleasant View City Water Distribution System.
 2. To install any connection, arrangement, or fixtures without using a backflow prevention device or assembly designed to prevent a violation of subsection A. Any such device or assembly must be approved for installation by the Pleasant View City Water System Superintendent with respect to each application.
 3. To install any backflow prevention device or assembly described in subsection B which is not installed as required in the Utah Plumbing Code.
- B. Officers and employees of Pleasant View City shall have the right to enter any place which is supplied with water from the Pleasant View City Water Distribution System and conduct a hazard survey or any other examination or test reasonably necessary to the enforcement of this section.
- C. Any user of water from the Pleasant View City Water Distribution System, and not Pleasant View City, shall pay all costs of installation and testing of backflow prevention devices or assemblies.
- D. Backflow prevention devices or assemblies required by this section shall be tested after the first 10 days of operation and not less than once each year by a technician certified by the Safe Drinking Water Committee of the State of Utah. Test results shall be furnished to the Pleasant View City Water System Superintendent.
- E. Water serviced may be discontinued to any user who is found to be in violation of this ordinance and who fails to take corrective action within ten (10) days after violation notification, except that water service may be discontinued immediately if an immediate threat to the water supply exists.
- F. Any person who violates the provisions of the section shall be civilly liable to Pleasant View City, and to third persons other than Pleasant View City, for all damages proximately caused by said violation.

SECTION 14

DISINFECTION OF WATER DISTRIBUTION SYSTEMS

PART 1 GENERAL

14.1.01 WORK INCLUDED

- A. Flushing of water distribution system and supply lines
- B. Chlorine disinfection
- C. Final flushing

14.1.02 QUALITY ASSURANCE

- A. All disinfection and testing procedures shall be in accordance with applicable Federal, State, and local standards, and in accordance with applicable provisions of AWWA C651.

14.1.03 REFERENCES

- A. American Water Works Association (AWWA).
 - 1. C651
 - 2. B300 - Standard for Hypochlorite
 - 3. B301 - Standard for Liquid Chlorine
- B. "Standard Methods for Examination of Water and Wastewater," American Public Health Association, AWWA, and Water Pollution Control Federation.
- C. "Utah Administrative Code" Section R309.

14.1.04 SUBMITTALS

- A. Results of chlorine residual tests.
- B. Results of bacteriological quality tests.

PART 2 PRODUCTS

14.2.01 CHLORINE

- A. Sodium Hypochlorite:
 - 1. Shall be in accordance with AWWA B300.

2. Shall be stored as recommended by manufacturer.

B. Calcium Hypochlorite:

1. Shall be in accordance with AWWA B300.
2. Shall be in a granular or tablet (5 gram) form.
3. Shall be stored in a cool, dry, and dark environment or as recommended by the manufacturer.

C. Liquid shall conform to AWWA B301.

PART 3

14.3.01 PREPARATION

- A. Notify Pleasant View City at least 72 hours prior to any flushing or disinfecting.
- B. Contractor shall install temporary connections for flushing water lines after disinfection. After the satisfactory completion of the flushing work, the Contractor shall remove and plug the temporary connection.

14.3.02 TABLET METHOD

- A. Tablet Method PG AWWA C651-92, Section 5.1
- B. The tablet method consists of placing calcium hypochlorite granules and tablets in the water main as it is being installed and filling the main with potable water when installation is completed.
- C. This method may be used only if the pipes and appurtenances are kept clean and dry during construction.
- D. Placing of calcium hypochlorite granules: During construction, calcium hypochlorite granules shall be placed at the upstream end of the first section of pipe, at the upstream end of each branch main, and at 500-ft intervals. The quantity of granules shall be as shown in Table 1.

<p>Warning: This procedure must not be used on solvent-welded plastic or on screwed-joint steel pipe because of the danger of fire or explosion from the reaction of the joint compounds with the calcium hypochlorite.</p>

TABLE 1
Ounces of Calcium Hypochlorite Granules to be Placed at Beginning of
Main and Each 500-ft Interval.

Pipe Diameter (in.)	Calcium Hypochlorite Granules (oz.)
4	0.5
6	1.0
8	2.0
10	3.0
12	4.0
16 and larger	8.0

- E. Placing of calcium hypochlorite tablets: During construction, 4 gram calcium hypochlorite tablets shall be placed in each section of pipe and also one such tablet shall be placed in each hydrant, hydrant branch main, and other appurtenances. The number of 4 gram tablets required for each pipe section shall be $0.0012d^2L$ rounded to the next higher integer, where d is the inside pipe diameter, in inches, and L is the length of the pipe section, in feet. Table 2 shows the number of tablets required for commonly used sizes of pipe. The tablets shall be attached by an adhesive such as Permatex No. 1, or equal. There shall be no adhesive on the tablet except on the broad side attached to the surface of the pipe. Attach all the tablets inside and at the top of the main, with approximately equal numbers of tablets at each end of a given pipe length. If the tablets are attached before the pipe section is placed in the trench, their position shall be marked on the section so it can be readily determined that the pipe is installed with the tablets at the top.
- F. When installation has been completed, the main shall be filled with water at a rate such that water within the main will flow at a velocity no greater than 1 ft/s. Precautions shall be taken to assure that air pockets are eliminated. This water shall remain in the pipe for at least 24 hours. If the water temperature is less than 41° F, the water shall remain in the pipe for at least 48 hours. Valves shall be positioned so that the strong chlorine solution in the treated main will not flow into water mains in active service.

TABLE 2
Tablets to be Placed in Pipe Sections

		Length of Pipe Section, ft.				
		13 or less	18	20	30	40
Pipe Diameter (inches)		(Number of 5 gram Calcium Hypochlorite Tablets*)				
4	1	1	1	1	1	1
6	1	1	1	1	2	2
8	1	2	2	2	3	4
10	2	3	3	3	4	5
12	3	4	4	4	6	7
016	4	6	7	7	10	13
20	5	8	10	10	14	18

*Based on 3.25 g available chlorine per tablet (65% available chlorine per 5 gram tablet); any portion of tablet rounded to next higher number. Dose of 25 mg/l required.

- G. Chlorination of the completed culinary water distribution system shall be provided with a disinfection dosage of 35 mg/l. The dosage shall be of sufficient strength to provide a minimum of 10 ppm residual after a 24 hour contact in the pipeline.
- H. If directed by the City, the completed piping system, or specified sections, shall be "super chlorinated." "Super Chlorination" shall provide dosage of 100 mg/l of chlorine for a period of at least 3 hours. The chlorine residual shall be a minimum of 50 mg/l after the 3 hour contact time.

14.3.03 ALTERNATIVE METHODS

- A. Alternative disinfection methods:
1. Continuous-Feed Method PG AWWA C651-92, Section 5.2.
 2. Slug Method PG AWWA C651-92, Section 5.3.

14.3.04 FINAL FLUSHING

- A. Clearing the main of heavily chlorinated water:
1. After the applicable retention period, the chlorinated disinfection water shall be drained from the line.
 2. Flushing shall continue until chlorine measurements show that the concentration

in the water leaving the main is no higher than that generally prevailing in the system.

B. Disposing of heavily chlorinated water.

1. The environment to which the chlorinated water is to be discharged shall be inspected. Do not discharge to any fish habitat, agricultural lands or other location where damage may occur.
2. If there is any question that the chlorinated discharge will cause damage to the environment, then a reducing agent shall be applied to the water to be wasted to neutralize thoroughly the chlorine residual remaining in the water.
3. Contractor to comply with Federal Clean Water Act. If necessary, secure permission from Utah "DEQ" or County Health Department for disposal of heavily chlorinated water.

14.3.05 BACTERIOLOGICAL SAMPLING AND TESTING.

A. Samples for bacteriologic analysis shall be collected in sterile bottles treated with sodium thiosulphate. A minimum of two (2) consecutive samples must be taken; 24 hours apart. A sampling tap shall be provided by the Contractor. Pleasant View City shall be responsible for sampling and bacteriologic analysis by a certified testing laboratory. The contractor shall be responsible for any costs associated with sampling. Contractor to give a minimum of 48 hours notice to Pleasant View City prior to required sampling.

B. Water line:

1. After final flushing and before the water main is placed in service, a sample shall be collected from the water line and tested for the absence of coliform organisms in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater." The testing shall be by either the multiple tube fermentation technique or the membrane filter technique.
2. All samples shall be taken from a sampling tap or fire hydrant at a representative point on the system.
3. If the initial disinfection fails to produce satisfactory samples, disinfection shall be repeated until satisfactory samples have been obtained.
4. If check samples show the presence of coliform organisms, then the main shall be re-chlorinated by the continuous-feed or slug method of chlorination until satisfactory results are obtained.
5. High velocities in the existing system, resulting from flushing the new main, may disturb sediment that has accumulated in the existing mains. When check samples are taken, water entering the new main shall also be sampled.

6. When the samples are satisfactory, the water line may be placed in service upon receiving notification from the Pleasant View City Engineer to do so.

14.3.06 DISINFECTION PROCEDURES WHEN CUTTING INTO OR REPAIRING EXISTING MAINS.

- C. The following procedure apply primarily when mains are wholly or partially dewatered. After the appropriate procedures have been completed, the main may be returned to service prior to completion of bacteriological testing in order to minimize the time customers are out of water. Leaks or breaks that are repaired with clamping devices while the mains remain full of pressurized water present little danger of contamination and require no disinfection.
 1. Trench treatment: When an old main is opened, either by accident or by design, liberal quantities of hypochlorite shall be applied to open trench areas.
 2. Swabbing with hypochlorite solution: The interiors of all pipe and fittings swabbed or sprayed with a 1% hypochlorite solution before they are installed.
 3. Flushing: Thorough flushing is the most practical means of removing contamination introduced during repairs. If valve and hydrant locations permit, flushing toward the work location from both directions is recommended. Flushing shall be started as soon as the repairs are completed and shall be continued until discolored water is eliminated.

14.3.07 SPECIAL PROCEDURE FOR CAULKED TAPPING SLEEVES

- D. Before a tapping sleeve is installed, the exterior of the main to be tapped shall be thoroughly cleaned, and the interior surface of the sleeve shall be dusted with calcium hypochlorite powder, at the rate of 100 mg per square foot.

END OF ATTACHMENT

ATTACHMENT C
OF
SPECIAL PROVISION SECTION 02079 S
NORTH OGDEN CITY WATER SYSTEM REQUIREMENTS

The information included in Section 02079 S - Attachment C, North Ogden City Water System Requirements is provided for the convenience of the Contractor. It is the Contractor's responsibility to obtain and comply with the requirements of the North Ogden City Water System standards.

SECTION 12

CULINARY WATER SYSTEM

PART 1 GENERAL

12.1.01 WORK INCLUDED

- A. Inspection
- B. Preparation
- C. Water pipe installation
- D. Valve and fitting installation
- E. Thrust block installation
- F. Corrosion protection
- G. Field quality control
- H. Metered Services
- I. Pressure Reducing Stations
- J. Fire Hydrants
- K. Fire Lines
- L. General
 - 1. The work to be done consists of furnishing all necessary labor, materials and equipment to provide complete installation and testing of water system facilities. Modifications to existing facilities shall conform to North Ogden City specifications.
 - 2. The construction of water mains shall include: excavation, backfill and compaction, construction of concrete structures, anchors, thrust blocks, supports, encasements; furnishing, installing, testing and disinfecting water pipelines, fittings, valves, blow offs, air valves, services, fire hydrants, and all appurtenances; removal and restoration of existing improvements and all work in accordance with the project plans and specifications.

M. Unacceptable Work

1. Unacceptable work as determined by North Ogden City whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner at the contractor's expense.

12.1.02 RELATED WORK

- A. Regulations for Excavation on North Ogden City Rights-of-Way -- Section 2
- B. Excavation and Backfill for Pipelines -- Section 6
- C. Disinfection of Water Distribution Systems -- Section 14

12.1.03 QUALITY ASSURANCE

- A. Comply with federal, state, and local codes and regulations. Underground piping pressure testing shall be witnessed by the North Ogden City Engineer or a designated City representative.
- B. Pipe, valve, and appurtenance materials and workmanship shall be in accordance with AWWA Standards or other standards as specified herein.

12.1.04 REFERENCES

- A. American Water Works Association (AWWA)
 1. C105, "Polyethylene Encasement for Gray and Ductile Cast-Iron Piping for Water and Other Liquids".
 2. C111, "Rubber-Gasket Joints for Ductile-Iron and Gray-iron pressure Pipe and Fittings".
 3. C151, "Ductile-Iron Pipe, Centrifugally Cast in Metal Molds or Sand-Lined Molds, for Water or Other Liquids".
 4. C504, "Rubber-Seated Butterfly Valves".
 5. C509, "Resilient-Seated Gate Valves for Water and Sewer Systems".
 6. C600, "Installation of Gray and Ductile Cast-Iron Water Mains and Appurtenances".
- B. American Society for Testing and Materials (ASTM):
 1. A-126: For valve bodies.

12.1.05 SUBMITTALS

- C. Submit manufacturer's specifications for all products to North Ogden City for approval.

12.1.06 DELIVERY, STORAGE AND HANDLING

- A. Load and unload pipe, fittings valves, and accessories by lifting with hoists or skidding so as to avoid shock or damage. Do not skid or roll pipe on skid ways against pipe already on the ground.
- B. Each length of pipe shall be unloaded opposite or near the place where it is to be laid in the trench.
- C. At times when pipe laying is not in progress, the open ends of the pipe shall be closed by a watertight plug or other means approved by North Ogden City.

PART 2 PRODUCTS

12.2.01 DUCTILE IRON PIPE

- A. Buried Applications
 - 1. Standard: AWWA C151.
 - 2. Pressure Rating (class) - Pipe Diameters 4" to 12" shall be thickness Class 50, Pipe Diameters 14" and larger shall be pressure Class 250 p.s.i.
 - 3. Cement lined and bituminous coated in accordance with AWWA C104.
 - 4. Rubber gasketed slip-on pipe joints in accordance with AWWA C111.
 - 5. Class 250 psi mechanical joint fittings in accordance with AWWA C110.
 - 6. Standard: NSF 61 - Drinking Water System Components - Health Effects.
- B. Above Ground Applications
 - 1. Same as below ground except joints and fittings to be flanged in accordance with AWWA C115.
 - 2. Gaskets to be full faced, 1/16th inch thick rubber.

12.2.02 ACCESSORIES

- A. Nuts and Bolts as required.
- B. Gaskets to be 1/16th inch full face rubber.
- C. 8 mil. polyethylene wrap in accordance with AWWA C105.

12.2.03 CORROSION PROTECTION

- A. Bolts: Apply 2 coats of no oxide wax to all exposed surfaces of bolts and to all bolt threads after installation of piping, fittings, valves, and couplings.
- B. Encase all buried ductile iron valves, fittings, connections and specialties in minimum 8 mil. polyethylene sheets in accordance with AWWA C-105. Duct tape shall be used to secure polyethylene sheets to the pipe.
- C. Encase buried ductile iron pipe in minimum 8 mil. polyethylene sheets in accordance with AWWA C-105 in selected areas and soil types which required

corrosion protection as approved and directed by the City Engineer.

12.2.04 VALVES

A. Gate valves (8" and smaller):

1. Cast Iron Body, Bronze Mounted: Furnish resilient-seated gate valves 3 inches through 10 inches that conform to the requirements of AWWA C509, non-rising stem design with "O" ring seals.
2. Operating Direction: Open counterclockwise.
3. Buried Valves: Flanged, mechanical joint, or as indicated.

B. Tapping valves and sleeves:

1. Tapping valves shall have large diameter seat rings to permit entry of tapping machine cutters. Inlet shall be flanged. Outlet shall suit branch piping and shall include the required flange for tapping machine adapter connection. In other details, tapping valves shall conform to the requirements outlined for gate valves in Paragraph 12.2.06 A.
2. Tapping sleeves shall be suitable for assembly around the existing main. Body shall be high strength ribbed construction. End gaskets shall be sized to suit the existing main, and the seals between the pipe and the gaskets shall be formed around the perimeter of the pipe.
3. Tapping valves and sleeves shall be split cast iron or stainless steel fully gasketed.

C. Butterfly valves (12" and Larger):

1. Shall comply with the requirements of AWWA C504, Class 150 B.
2. Valve bodies shall be cast in conforming to ASTM A126, Class B. Ends shall be flanged unless otherwise specified.
3. Valve discs shall be streamlined and shall have a continuous 360 sealing surface of stainless steel, ASTM A276, type 304.
4. Valve shafts shall be stainless steel ASTM A276, type 304, of stub construction with at least 1-1/2 shaft diameter engagement into the disc and shall be fastened to the disc with upset pins.
5. Valve seats shall be of Buna N material bonded to the valve body.
6. Valve bearings shall be self-lubricating and non-corrosive and shall have a significant difference in hardness from the valve shaft.
7. Valve actuators shall be designed as an integral part of the valve and shall meet all the requirements of AWWA C504. All actuators shall be hermetically sealed and permanently lubricated with no exposed moving

parts. All manual actuators will meet the requirements of AWWA C504 for nut input.

12.2.05 VALVE BOXES

- A. Shall be suitable for HS-20 traffic loading.
- B. Shall be furnished and installed over each line valve and over each auxiliary hydrant valve. All buried valves shall be installed complete with a Tyler 564A slip valve box or approved equivalent. Valves over 5' in depth shall have a valve nut extension stem installed.

12.2.06 FITTINGS

- A. Mechanical joint:
 - 1. Mechanical joint fittings shall be cast iron class 250 and shall conform to AWWA C-110 and C-111. Mechanical joint fittings shall be coated with a petroleum asphaltic coating 1 mil thick.
- B. Flanged fittings:
 - 1. Flanged fittings shall conform to AWWA C-110 and C-111 Cast Iron Fittings. Flanges shall be faced and drilled and shall be Class 250. Flanged fittings shall be coated with a petroleum asphaltic coating 1 mil thick.

12.2.07 METERED SERVICES

- A. 1" Service Laterals (see Standard Details):
 - 1. All supplies, labor, machinery, etc. will be supplied by the contractor. North Ogden City will supply and set the meter only on 1" connections. The contractor shall supply meters for connections greater than 1". All 1" meters shall be Sensus model SR2-TRPL (Automated Meter Reading capabilities).
 - 2. All connections must be made with compression copper fittings made of brass.
 - 3. Brass corporation stops Mueller B-25008 or equivalent. Tap directly into the main. All corps shall be CC thread. No saddles are allowed on ductile iron mains.
 - 4. Type K soft drawn copper pipe installed as one solid piece from main to meter.
 - 5. 18" meter yokes. Mueller B-2434-6A-0118 or equivalent (copper or brass).
 - 6. Meter Boxes: 21" diameter concrete meter box as approved by the City.

7. 21" cast iron ring and lid with locking nut (D&L Supply L-2244 or City approved equal).

B. 1-1/2" and 2" Service Laterals (see Standard Details):

1. All supplies, labor, machinery, etc. will be provided by the contractor. North Ogden City does not provide or set the meter if it exceeds 1" in size.
2. Type K soft drawn copper pipe installed as one solid piece from main to meter.
3. Copper or brass screw type fittings (ball valves, strainers, nipples, tees, bends, etc.).
4. Meters: Shall be "Sensus" or "Rockwell" brand meters and shall be turbo magnetic drive type or disk type meters as determined by North Ogden City. Meters shall also have Automated Meter Reading capabilities.
5. 5 foot diameter precast concrete manhole with 30" cast iron ring and lid suitable for HS-20 traffic loading (D & L Supply 1181 or City approved equal). An alternate 30" diameter poly meter vault section can be used with the prior approval of the City Engineer.
6. Meter box to have 12" gravel floor.

C. 3" Service Laterals (see Standard Details):

Specifications for 3" services shall be the same as 2" connections with the following exceptions:

1. Where possible flanged fittings may be substituted for screw on type fittings.
2. Sensus meters. The meter shall be a turbine meter or as directed by the North Ogden City Engineer, with Automated Meter Reading capabilities.
3. Meter Vault to have concrete floor and 18" diameter concrete drain sump with personnel access manhole and steps. See North Ogden City Standard Details.

D. 4" and Larger Service Laterals:

1. Ductile iron pipe.
2. Cast iron, flanged gate valves and fittings.
3. Concrete meter vault with cast iron lid, concrete floor and 18" diameter drain sump with personnel access manhole and steps.

4. Sensus meters. The meter shall be a turbine type meter or as directed by the North Ogden City Engineer. The meter shall have Automated Meter Reading capability.
 5. Floor supports as needed.
- E. All service laterals are to have 48 inches min. cover and are to be installed using one seamless section of pipe from the water main to the meter.

12.2.08 PRESSURE REDUCING VALVE STATIONS (See Standard Details)

- A. All pressure reducing valves (PRV) shall be "Clayton" or "Ames" brand Pressure Reducing and Sustaining Valves as shown on the Standard Drawings. Specific brand name to be installed for each specific installation shall be directed by the City Engineer.
- B. All PRV stations because of the weight of the combined fittings, must have support blocks for support. Supports shall be screw jack type and shall not restrict access to any of the bolts.
- C. On PRV's over 6", North Ogden City may determine that a low flow PRV in excess of 2" is required.
- D. Vault:
 1. Vault shall have a concrete floor with an 18" concrete pipe sump. The pipe sump shall be located near the access lid and the floor shall slope towards the sump (2% slope minimum).
 2. Vault shall have 6'-6" clearance between the floor and ceiling of the vault.
 3. Vault shall have two access lids:
 - a. A 36" diameter clear opening manhole ring and lid shall be centered over the PRV to provide easy access for possible removal. Ring and lid shall be D & L Supply A-1460 or equivalent.
 - b. A 24" diameter clear opening manhole ring and lid shall be located at a corner of the vault. Ring and lid shall be D&L Supply A-1181 or equivalent. All access lids (personnel lids) must be accompanied by ladder either poured into or securely fastened to the vault wall. All ladders will have rungs not farther than 1' apart. Steps poured into the vault wall shall be rubber coated as are found in pre-poured sewer cones and sections. Ladders fastened to the walls shall have lag bolts connections as shown on the plans.
 - c. The vault shall have min. 8" thick walls. Wall and roof shall have steel reinforcement designed for HS-20 traffic loading.
 - d. All piping which penetrates wall sections shall have "Romac" MJRG retainer glands and 24" square steel plate for thrust restraint on each side of the wall opening as detailed on the drawings.
 4. See Standard Details for PRV general specification details.

12.2.09 FIRE HYDRANTS (See Standard Details)

- A. All fire hydrants shall be red in color and shall be one of the following 6" compression type hydrants:
 - 1. Mueller Centurion
 - 2. Clow Medallion
- B. Auxiliary valve complete with valve box.
- C. Gravel for sump.
- D. Concrete for blocking and setting hydrant (Mega-lug connections utilized to replace concrete blocking is acceptable with the prior authorization of the City).
- E. All hydrants shall conform to AWWA Specifications C-502.
- F. Hydrant shall be equipped with two 2 ½" hose nozzles and one 4 ½" nozzle, and nozzles shall have the national standard threading.
- G. Each hydrant shall be supplied with O-ring seals and a national standard pentagon operating nut designed for clockwise rotation closing.
- H. Auxiliary valve shall conform to North Ogden City Specification for gate valves. The water line from the main to the hydrant shall be 6" minimum.
- I. Blocking shall conform to North Ogden City Specifications for thrust blocking.

12.2.10 FIRE SPRINKLER/SUPPRESSION LINES

- A. All fire lines must be equipped with a gate valve. The valve shall conform to North Ogden City specifications for gate valves.
- B. All fire lines shall be ductile iron pipe, thickness class 50 or as shown on the City approved site plans. Fire lines shall meet North Ogden City's specifications for main lines.
- C. Fire line locations shall be approved by North Ogden City.
- D. Notify North Ogden City Water Inspector 48 hours prior to installation.
- E. Unless written authorization is given by North Ogden City, no services shall be connected to the fire sprinkler/suppression lines.

PART 3 EXECUTION

12.3.01 INSPECTION

- A. All pipe fittings, valves and other appurtenances shall be examined by Contractor

carefully for damage and other defects immediately before installation.

- B. Defective materials shall be marked and held for inspection by the North Ogden City Engineer, who may prescribe corrective repairs or reject the materials.
- C. Prior to installation, valves shall be inspected for direction of opening, freedom of operation, tightness of pressure-containing bolting, cleanliness of valve ports and seating surfaces, handling damage, and cracks. Defective valves shall be corrected or held for inspection by the North Ogden City Engineer.

12.3.02 PREPARATION

- A. Furnish temporary support, adequate protection, and maintenance of all underground and surface structures, drains, sewers, and other obstructions encountered in the progress of the work.
- B. The trench bottom and pipe bedding surface shall be prepared in accordance with the approved plans, the excavation and backfill specifications in the North Ogden City Public Works Standards and The Regulations for Excavation on North Ogden City Rights-of-Way prior to pipe installation.
- C. All lumps, blisters, and excess coating shall be removed from the socket and plain ends of each pipe, and the outside of the plain end and the inside of the bell shall be wiped clean and dry and be free from dirt, sand, grit, or any foreign material before the pipe is laid. Bevel and file plain end of pipe to prevent gasket damage during joint assembly.
- D. Proper implements, tools, and facilities shall be provided and used for the safe and convenient performance of the work. All pipe, fittings, and valves shall be lowered carefully into the trench by means of a derrick, ropes, or other suitable tools or equipment, in such a manner as to prevent damage to water-main materials and protective coatings and linings. Under no circumstances shall water system materials be dropped or dumped into the trench.

12.3.03 WATER PIPE INSTALLATION

- A. The water pipe shall be laid and maintained to lines and grades established by the drawings and specifications with fittings and valves at the required locations unless otherwise approved by North Ogden City. Unless otherwise shown, all water lines shall have 4.0' minimum cover to final finish grade. All main lines are to be located 10' off the street centerline as shown on City approved drawings unless otherwise specified. All valves and fire hydrants are to be installed as noted on the approved plans.
- B. When crossing existing pipelines or other structures, alignment and grade shall be adjusted as necessary, with the approval of the North Ogden City Engineer to provide clearance as required by federal, state, or local regulations or as deemed necessary by North Ogden City to prevent future damage or contamination of either structure.

- C. Lay all water lines on a continuous grade to avoid high points except as shown on the plans.
- D. Prevent foreign material from entering the pipe while it is being placed in the trench. During laying operations, no debris, tools, clothing, or other materials shall be placed in the pipe. If the pipe-laying crew cannot put the pipe into the trench and in place without getting earth into it, the Engineer may require that, before lowering the pipe into the trench, a heavy, tightly woven canvas bag of suitable size shall be placed over each end and left there until the connection is to be made to the adjacent pipe.
- E. As each length of pipe is placed in the trench, the joint shall be assembled in accordance with manufacturer's recommendations.
- F. The pipe shall be brought to correct line and grade, and shall be secured in place with approved backfill material in accordance with the North Ogden City Public Works Standards.
- G. Wherever it is necessary to deflect pipe from a straight line, either in the vertical or horizontal plane, to avoid obstructions or plumb stems or where long-radius curves are permitted, the amount of deflection allowed shall not exceed that recommended by pipe manufacturer and shall be approved by the North Ogden City Engineer.
- H. At times when pipe laying is not in progress, the open ends of pipe shall be closed by a watertight plug or other means approved by North Ogden City. When practical, the plug shall remain in place until the trench is pumped completely dry. Care must be taken to prevent pipe flotation should the trench fill with water.
- I. Cutting pipe for the insertion of valves, fittings, or closure pieces shall be done in a neat, workmanlike manner without creating damage to the pipe or lining.
- J. Cut ends and rough edges shall be ground smooth. For push-on joint connections, the cut end shall be beveled.
- K. Whenever possible, all tie-ins will be made dry. North Ogden City shall turn off the water upon 48 hours minimum advance notice by the contractor. It shall be the contractor's responsibility to advise all affected water users of the interrupted service a minimum of 24 hours prior to any service interruption. In large areas where there is heavy use, where shutting down the line is not feasible in the opinion of the North Ogden City Engineer, the contractor shall be required to tie onto the main by using a wet tap.
- L. All dead ends shall be plugged complete with a 2" wash out assembly (see Standard Details).

12.3.04 VALVE AND FITTING INSTALLATION

- A. Valves shall be as located on North Ogden City Standard Details.
- B. Valve-operating stems shall be oriented in a manner to allow proper operation.
- C. A valve box shall be provided for every valve that has no gearing or operating mechanism or in which the gearing or operating mechanism is fully protected with a gear case. The valve box shall not transmit shock or stress to the valve and shall be centered over the operating nut of the valve, with the box cover flush with the surface of the finished area or such other level as may be directed by the owner. In paved areas, a concrete collar around the valve box is required.
- D. In no case shall valves be used to bring misaligned pipe into alignment during installation. Pipe shall be supported in such a manner as to prevent stress on the valve.

12.3.05 THRUST BLOCK INSTALLATION

- A. Thrust blocks shall be provided at reducers, valves, tees, plugs, and caps, and at bends deflecting 22-1/2 degrees or more. 11-1/4 degree pipe bends shall be installed with approved ductile iron retainer glands.
- B. Thrust block shall be placed between solid ground and the fitting to be anchored; the area of bearing on the pipe and on the ground in each instance shall be that shown on the drawings. The block shall, unless otherwise shown or directed, be so located as to contain the resultant thrust force and so that the pipe and fitting joints will be accessible for repair. Concrete shall not be located within 1-1/2" of the joints and bolts.
- C. Concrete for thrust blocks shall have a compressive strength of not less than 2500 psi in 28 days.
- D. Care shall be taken to not pour concrete around bolts.
- E. Refer to Standard Details for thrust block details.

12.3.06 CORROSION PROTECTION

- A. Bolts: Apply 2 coats of no oxide wax to all exposed surfaces of bolts and to all bolt threads after installation of piping, fittings, valves, and couplings.
- B. Encase all buried ductile iron valves, fittings, connections, and specialties in minimum 8 mil. polyethylene sheets in accordance with AWWA C-105.
- C. In areas where corrosive soils may be present, all buried ductile iron pipe is to be poly-wrapped in accordance with AWWA C-105. The North Ogden City Engineer will designate areas where an appropriate soils analysis is required to determine soil characteristics. Contractor shall bare the expense for soils analysis.

12.3.07 1" SERVICE LATERALS

- A. Laterals shall be installed prior to the construction of concrete curb and gutter. The contractor shall be responsible to have sufficient elevation controls at the construction site to set water meter boxes at the City approved finish grades.
- B. Locate all laterals clustered in groups of two, where possible, on common lot lines. There must be a minimum clearance of 12" between clustered water meter boxes. Location of secondary water service lines must be coordinated with the location of the culinary water services so that the culinary and secondary water service lines are located on opposite lot corners. All proposed culinary water meter locations shall be approved, prior to construction, by the North Ogden City Water Department.
- C. All meters shall be located between the curb and the sidewalk unless approved otherwise by the North Ogden City Engineer.
- D. Corporation stops shall be tapped at 45 degree angles unless approved otherwise by the North Ogden City Engineer. The installer should firmly compact dirt around and under the corporation stop and copper loop.
- E. Type K soft drawn copper shall be connected to the top of the water main at a 45 angle by using a brass nut and a compression fitting on the end of the copper. All tubing shall be cut straight.
- F. A small loop (goose neck) of excess copper must be put in the copper tubing to accommodate for settlement that may occur (see Standard Details).
- G. All laterals must be of one continuous copper tube between the corp stop and the meter box. No joints or copper to copper connectors will be allowed.
- H. All laterals shall have a minimum of 48" cover from top of copper tubing to finished grade.
- I. All yokes shall be 18" Mueller H-1434-2W-01018 or approved equivalent and are to be connected to the service line by use of Mueller compression fittings or equivalent.
- J. From the top of the lid (cast iron) to shut off valve on the yoke, there must be a distance of not less than 18" or more than 24". No meter will be set if this or any other specification is not met.
- K. All pig-tails will be type K hard drawn copper pipe and will be stubbed into the property a minimum of 5'.
- L. All meter boxes shall be centered squarely over the yoke to provide access to the connection nuts on the bottom of the yoke. Meter box interior shall be kept clear of dirt so that connecting nuts are visible.
- M. All meter boxes will be installed so the lid of the meter box will be level with the adjacent curb after any settlement has occurred..

- N. See Standard Details for typical installation detail.
- O. Precautions should be used to prevent any foreign materials from entering the pipe. All pig-tails will be mashed on the end which is stubbed into the property. Contractor will make every effort to ensure that no kinks or restrictions occur in the copper service.

North Ogden City may require the compression fitting on the cold side of the yoke to be tested by inserting a jumper in between the yoke. Jumper shall be complete with gaskets and will be installed and ready for inspection prior to calling the City.

- P. Copper laterals may, at the discretion of the North Ogden City Engineer, be required to be bedded in sand. If sand bedding is required, a minimum of 6" below and 6" above the pipe shall be placed.

12.3.09 1 ½" AND 2" SERVICE LATERALS

- A. All meter vaults shall have a gravel base (floor) not less than 1' thick.
- B. The meter shall be a minimum of 36" and a maximum of 42" from the top of the box (see Standard Details). In cases where the main water line is deeper, the service lateral will be raised to conform to this specification.
- C. A bypass shall be installed on the metered line.
- D. All solder joints shall be of 95-5 solder or better or Mueller compression fittings.
- E. The area where the pipe comes into and out of the vault shall be grouted to prevent debris from washing into the box.
- F. No sprinkler systems shall be tied into the line inside of the meter vault.
- G. When subject to traffic, the box must be designed for HS-20 traffic loading and be equipped with an appropriate cover approved by the City Engineer.
- H. 1 ½" and 2" taps to the main line shall be made with a saddle. Saddles shall be cast iron and have a minimum of two straps which hold the saddle to the main. On 1 ½" and 2" taps only, a compression type corporation stop is acceptable. Saddle is to be wrapped in polyethylene.
- I. See Detail Drawings for typical meter installation detail.

12.3.10 3" AND LARGER SERVICE LATERALS

- A. The meter vault shall have a gravel base (floor) not less than one foot in depth.
- B. In case of extreme depth (over 36") a ladder shall be poured into or securely fastened to the vault wall. The access lid shall be moved so that it is centered over

the ladder.

- C. The bypass shall be the same size as the metered line.
- D. No sprinkling system shall be tied inside the meter vault. Such tie-ins must be made on the owners side of the meter station (outside the vault).
- E. When subject to traffic the box must be designed for HS-20 traffic loading and be equipped with an appropriate lid approved by the City Engineer.
- F. The meter vault shall be poured so that 12" minimum clearance exists between all sides of the vault and the piping.
- G. See Detail Drawings for typical installation detail.

12.3.11 FIRE HYDRANT INSTALLATION

- A. The trench for the hydrant shall be slightly over excavated to provide a 1 cubic yard gravel sump as shown on the drawings.
- B. Concrete thrust blocking shall be set behind the hydrant for support.
- C. The drain holes shall not be covered by the concrete blocking.
- D. All hydrants shall be level both at the side and at the back.
- E. All hydrants shall be turned on after installation and inspected by North Ogden City Water Department and Fire Marshall for proper operation.
- F. See Detail Drawings for Fire Hydrant Connection Detail.

12.3.12 FIELD QUALITY CONTROL

- A. Temporary connections for pressure testing shall be made by the Contractor at his expense and removed by him after the satisfactory completion of the testing work.
- B. Pressure Test:
 - 1. After completion of the installation of the system, (including water mains and all service laterals) or any reasonable length thereof, prior to backfilling and after thorough flushing of the portion to be tested, pressure tests shall be made. The system to be tested shall be subjected to a hydrostatic pressure of 200 pounds per square inch, following AWWA C600-93 procedures, unless otherwise noted on the drawings, for a period of not less that 2 hours duration.
 - 2. The portion to be tested shall be filled with water slowly and the specified test pressure shall be applied by means of a pump connected to the pipe in a manner satisfactory to the North Ogden City Engineer. The Contractor

shall make the temporary connection for pressure testing.

3. Before applying the specified test pressure, air shall be expelled completely from the pipe, valves, and hydrants. If permanent air vents are not located at all high points, the contractor shall install corporation stops at such points so that the air can be expelled as the line is filled with water. After all the air has been expelled, the corporation cocks shall be closed and the test pressure applied. At the conclusion of the pressure test, the corporation cocks shall be removed and plugged by the Contractor with a brass plug.
4. All exposed pipe, fittings, valves, hydrants, and joints shall be examined carefully during the test. Any damage or defective pipe, fittings, valves, or hydrants that are discovered following the pressure test shall be repaired or replaced with sound material and the test shall be repeated until it is satisfactory to the North Ogden City Engineer, at no cost to the Owner.

C. Leakage Test:

1. A leakage test shall be conducted concurrently with the pressure test, following AWWA C600-93 procedures.
2. Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof, to maintain pressure within 5 psi of the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water.
3. Maximum leakage during the pressure test shall not exceed one gallon per inch diameter per 1000 feet of pipe.
4. Acceptance of installation shall be determined on the basis of allowable leakage. If any test of pipe laid discloses leakage greater than that specified above, the contractor shall, at his own expense, locate and repair the defective material until the leakage is within the specified allowance.
5. All visible leaks, other than a minor amount of sweating, shall require immediate stoppage of the test and tightening of the joints so that, when pressure is again put on the system, there will be no leakage.

D. Disinfection of Water Distribution Systems:

1. Refer to Section 14.

12.03.13 CROSS CONNECTION CONTROL AND BACKFLOW PREVENTION

A. It shall be unlawful at any place supplied with water from the North Ogden City Water Distribution System to do any of the following:

1. To install after written notification from North Ogden City Water System

Superintendent or use any physical connection or arrangement of piping or fixtures which may allow any fluid or substance not suitable for human consumption to come in contact with potable water in the North Ogden City Water Distribution System.

2. To install any connection, arrangement, or fixtures without using a backflow prevention device or assembly designed to prevent a violation of subsection A. Any such device or assembly must be approved for installation by the North Ogden City Water System Superintendent with respect to each application.
 3. To install any backflow prevention device or assembly described in subsection B which is not installed as required in the Utah Plumbing Code.
- B. Officers and employees of North Ogden City shall have the right to enter any place which is supplied with water from the North Ogden City Water Distribution System and conduct a hazard survey or any other examination or test reasonably necessary to the enforcement of this section.
 - C. Any user of water from the North Ogden City Water Distribution System, and not North Ogden City, shall pay all costs of installation and testing of backflow prevention devices or assemblies.
 - D. Backflow prevention devices or assemblies required by this section shall be tested not less than once each year by a technician certified by the Safe Drinking Water Committee of the State of Utah. Test results shall be furnished to the North Ogden City Water System Superintendent.
 - E. Water service may be discontinued to any user who is found to be in violation of this ordinance and who fails to take corrective action within ten (10) days after violation notification, except that water service may be discontinued immediately if an immediate threat to the water supply exists.
 - F. Any person who violates the provisions of the section shall be civilly liable to North Ogden City, and to third persons other than North Ogden City, for all damages proximately caused by said violation.

PART 4 WATER POLICY FOR AREAS ABOVE 5018 FOOT ELEVATION

12.04.01 It shall be the policy of North Ogden City to provide culinary water service to those areas above 5018 feet elevation (approximately 40 psi of static pressure) provided the following conditions are met:

- A. Developer, subdivider, or proposed user shall provide financing for the design and construction of new deep well water supplies (if required), pumping stations and/or storage reservoirs to service the new proposed water service zone.
- B. The City Engineer, in consultation with the requesting party, shall design all deep

well facilities (if required), pumping facilities, special pipelines and/or reservoirs needed for the new pressure zone. All cost of said design and construction shall be borne by the requesting party. A reimbursement agreement between the developer and the City covering the cost of the required facilities will be negotiated. The City will collect water impact fees in the new water service zone and use these fees to reimburse the developer for the cost of design and construction.

- C. Individual home service lateral sizing shall be recommended by the City Engineer.
- D. All pressurization facilities shall be constructed to specified City and State Drinking Water Division standards and subject to construction inspection by the City staff.
- E. Following construction, all completed facilities shall be turned over to North Ogden City for ownership, operation and maintenance.
- F. Users in any special pressure service area may be subject to a monthly surcharge for this service in addition to regular water use billings.

SECTION 13

DISINFECTION OF WATER DISTRIBUTION SYSTEMS

PART 1 GENERAL

13.1.01 WORK INCLUDED

- A. Flushing of water distribution system and supply lines
- B. Chlorine disinfection
- C. Final flushing

13.1.02 QUALITY ASSURANCE

- A. All disinfection and testing procedures shall be in accordance with applicable Federal, State, and local standards, and in accordance with applicable provisions of AWWA C651.

13.1.03 REFERENCES

- A. American Water Works Association (AWWA).
 - 1. C651.
 - 2. B300 - Standard for Hypochlorite
 - 3. B301 - Standard for Liquid Chlorine
- B. "Standard Methods for Examination of Water and Wastewater", American Public Health Association, AWWA, and Water Pollution Control Federation.
- C. "Utah Administrative Code" Section R309.

13.1.04 SUBMITTALS

- A. Results of chlorine residual tests.
- B. Results of bacteriological quality tests.

PART 2 PRODUCTS

13.2.01 CHLORINE

- A. Sodium Hypochlorite:
 - 1. Shall be in accordance with AWWA B300.
 - 2. Shall be stored as recommended by manufacturer.
- B. Calcium Hypochlorite:

1. Shall be in accordance with AWWA B300.
2. Shall be in granular or tablet (5 gram) form.
3. Shall be stored in a cool, dry, and dark environment or as recommended by manufacturer.

C. Liquid shall conform to AWWA B301.

PART 3 EXECUTION

13.3.01 PREPARATION

- A. Notify North Ogden City at least 72 hours prior to any flushing or disinfecting.
- A. Contractor shall install temporary connections for flushing water lines after disinfection. After the satisfactory completion of the flushing work, the Contractor shall remove and plug the temporary connection.

13.3.02 TABLET METHOD

- A. Tablet Method PG AWWA C651-92, Section 5.1
- B. The tablet method consists of placing calcium hypochlorite granules and tablets in the water main as it is being installed and filling the main with potable water when installation is completed.
- C. This method may be used only if the pipes and appurtenances are kept clean and dry during construction.
- D. Placing of calcium hypochlorite granules: During construction, calcium hypochlorite granules shall be placed at the upstream end of the first section of pipe, at the upstream end of each branch main, and at 500-ft intervals. The quantity of granules shall be as shown in Table 1. Warning: This procedure must not be used on solvent-welded plastic or on screwed-joint steel pipe because of the danger of fire or explosion from the reaction of the joint compounds with the calcium hypochlorite.

TABLE 1
Ounces of Calcium Hypochlorite Granules to be Placed
at Beginning of Main and Each 500-ft Interval

Pipe Diameter (in.)	Calcium Hypochlorite Granules (oz.)
4	0.5
6	1.0
8	2.0
10	3.0
12	4.0
16 and larger	8.0

- E. Placing of calcium hypochlorite tablets: During construction, 5 gram calcium hypochlorite tablets shall be placed in each section of pipe and also one such tablet shall be placed in each hydrant, hydrant branch main, and other appurtenances. The number of 5 gram tablets required for each pipe section shall be $0.0012d^2L$ rounded to the next higher integer, where d is the inside pipe diameter, in inches, and L is the length of the pipe section, in feet. Table 2 shows the number of tablets required for commonly used sizes of pipe. The tablets shall be attached by an adhesive such as Permatex No. 1, or equal. There shall be no adhesive on the tablet except on the broad side attached to the surface of the pipe. Attach all the tablets inside and at the top of the main, with approximately equal numbers of tablets at each end of a given pipe length. If the tablets are attached before the pipe section is placed in the trench, their position shall be marked on the section so it can be readily determined that the pipe is installed with the tablets at the top.
- F. When installation has been completed, the main shall be filled with water at a rate such that water within the main will flow at a velocity no greater than 1 ft/s. Precautions shall be taken to assure that air pockets are eliminated. This water shall remain in the pipe for at least 24 hours. If the water temperature is less than 41 F, the water shall remain in the pipe for at least 48 hours. Valves shall be positioned so that the strong chlorine solution in the treated main will not flow into water mains in active service.

TABLE 2
Tablets to be Placed in Pipe Sections

	Length of Pipe Section, ft.				
	13 or less	18	20	30	40
Pipe Diameter (Inches)	(Number of 5 gram Calcium Hypochlorite Tablets *)				
4"	1	1	1	1	1
6"	1	1	1	2	2
8"	1	2	2	3	4
10"	2	3	3	4	5
12"	3	4	4	6	7
16"	4	6	7	10	13
20"	5	8	10	14	18

* Based on 3.25 g available chlorine per tablet (65% available chlorine per 5 gram tablet); any portion of tablet rounded to next higher number. Dose of 25 mg/l required.

- G. Chlorination of the completed culinary water distribution system shall be provide with a disinfection dosage of 25 mg/l. The dosage shall be of sufficient strength to provide a minimum of 10 ppm residual after a 24 hour contact in the pipeline.
- H. If directed by the City, the completed piping system, or specified sections, shall be "super chlorinated." "Super chlorination" shall provide dosage of 100 mg/l of chlorine for a period of at least 3 hours. The chlorine residual shall be a minimum of 50 mg/l after the 3 hour contact time.

13.3.03 ALTERNATIVE METHODS

- A. Alternative disinfection methods:
 1. Continuous-Feed Method PG AWWA C651-92, Section 5.2.
 2. Slug Method PG AWWA C651-92, Section 5.3

13.3.04 FINAL FLUSHING

A. Clearing the main of heavily chlorinated water:

1. After the applicable retention period, the chlorinated disinfection water shall be drained from the line.
2. Flushing shall continue until chlorine measurements show that the concentration in the water leaving the main is no higher than that generally prevailing in the system.

B. Disposing of heavily chlorinated water:

1. The environment to which the chlorinated water is to be discharged shall be inspected. Do not discharge to any fish habitat, agricultural lands or other location where damage may occur.
2. If there is any question that the chlorinated discharge will cause damage to the environment, then a reducing agent shall be applied to the water to be wasted to neutralize thoroughly the chlorine residual remaining in the water.
3. Contractor to comply with Federal Clean Water Act. If necessary, secure permission from Utah "DEQ" or County Health Department for disposal of heavily chlorinated water.

13.3.05 BACTERIOLOGICAL SAMPLING AND TESTING

A. Samples for bacteriologic analysis shall be collected in sterile bottles treated with sodium thiosulfate. A minimum of two (2) consecutive samples must be taken; 24 hours apart. A sampling tap shall be provided by the Contractor. North Ogden City shall be responsible for sampling and bacteriologic analysis by a certified testing laboratory. Contractor to give minimum 48 hours notice to North Ogden City prior to required sampling.

B. Water line:

1. After final flushing and before the water main is placed in service, a sample shall be collected from the water line and tested for the absence of coliform organisms in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater". The testing shall be by either the multiple tube fermentation technique or the membrane filter technique.
2. All samples shall be taken from a sampling tap or fire hydrant at a representative point on the system.
3. If the initial disinfection fails to produce satisfactory samples, disinfection shall be repeated until satisfactory samples have been obtained.
4. If check samples show the presence of coliform organisms, then the main shall be re-chlorinated by the continuous-feed or slug method of

chlorination until satisfactory results are obtained.

5. High velocities in the existing system, resulting from flushing the new main, may disturb sediment that has accumulated in the existing mains. When check samples are taken, water entering the new main shall also be sampled.
6. When the samples are satisfactory, the water line may be placed in service upon receiving notification from the North Ogden City Engineer to do so.

13.3.06 DISINFECTION PROCEDURES WHEN CUTTING INTO OR REPAIRING EXISTING MAINS

- A. The following procedures apply primarily when mains are wholly or partially dewatered. After the appropriate procedures have been completed, the main may be returned to service prior to completion of bacteriological testing in order to minimize the time customers are out of water. Leaks or breaks that are repaired with clamping devices while the mains remain full of pressurized water present little danger of contamination and require no disinfection.
 1. Trench treatment: When an old main is opened, either by accident or by design, liberal quantities of hypochlorite shall be applied to open trench areas.
 2. Swabbing with hypochlorite solution: The interiors of all pipe and fittings (particularly couplings and sleeves) used in making the repair shall be swabbed or sprayed with a 1-percent hypochlorite solution before they are installed.
 3. Flushing: Thorough flushing is the most practical means of removing contamination introduced during repairs. If valve and hydrant locations permit, flushing toward the work location from both directions is recommended. Flushing shall be started as soon as the repairs are completed and shall be continued until discolored water is eliminated.

13.3.07 SPECIAL PROCEDURE FOR CAULKED TAPPING SLEEVES

- A. Before a tapping sleeve is installed, the exterior of the main to be tapped shall be thoroughly cleaned, and the interior surface of the sleeve shall be dusted with calcium hypochlorite powder, at the rate of 100 mg per square foot.

END OF ATTACHMENT

ATTACHMENT D
OF
SPECIAL PROVISION SECTION 02079 S
PINE VIEW WATER SYSTEM REQUIREMENTS

The information included in Section 02079 S - Attachment D, Pine View Water System Requirements is provided for the convenience of the Contractor. It is the Contractor's responsibility to obtain and comply with the requirements of the Pine View Water System standards.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Secondary water distribution and transmission system identification, valves, boxes, service connections and accessories.
- B. This section is applicable to Pine View Water System improvements.

1.2 REFERENCES

- A. Pine View Water System requirements.

1.3 PERFORMANCE REQUIREMENTS

- A. Depth of Cover:
 - 1. 30-inches minimum to top of pipe or as indicated in local building code. 36-inches minimum to top of pipe for 8-inch and larger piping.
 - 2. Remove any section of pipe already placed that is found to be defective or damaged. Relay or replace without additional cost to OWNER.

1.4 SITE CONDITIONS

- A. Minimize neighborhood and business access traffic interruptions. Barricade stockpiles.
- B. Secure acceptance of pipeline lateral tie-in work.
- C. Repair public and private facilities damaged by CONTRACTOR
- D. Do not turn on or turn off any valve outside of the Work prior to securing ENGINEER's or water company's permission.

PART 2 PRODUCTS

2.1 SERVICE CONNECTIONS

- A. Master Valves: Brass gate valves with handwheel operator.
- B. Service Lines: Class 200 polyethylene, C.T.S sizing.
- C. Fittings: Brass adapters with stainless steel stiffener inserts.
- D. Saddles:
 - 1. Stainless steel, double strap, nylon coated head.

2. Provide tapping saddles that have a minimum rated working pressure of 300 psi, neoprene Buna N gaskets, and bronze tapered threads.

2.2 MAIN LINE PIPE AND FITTINGS

- A. 3-inch to 12-inch diameter: Polyvinyl Chloride (PVC).
 1. Pipe: Dimensions, class, SDR, and tolerances per ASTM D 2241. Pressure Class 200 (SDR-21) except use outside diameters defined by ductile iron pipe sizes.
 2. Compounds: Type 1, Grade 1, Class 12454A per ASTM D 1784.
 3. Joints: Bell and spigot with flexible elastomeric seals per ASTM F477. Use non-toxic lubricant.
- B. 14-inch and Larger: Ductile Iron.
 1. Pressure Class 200 psi in accordance with AWWA C151 with push-on joints per AWWA C111.
 2. Cement lining for all pipe and fittings per AWWA C104.
 3. Class 250 ductile iron fittings per AWWA C110.
 4. Coupler with mechanical joint fittings per AWWA C104, C110, and C111.
 5. Rubber gasket slip-on pipe joints per AWWA C111 with gasket lubricant.
 6. Buried ductile iron pipe: 8 mil vinyl wrap plastic sleeve.
 7. Buried Mechanical Joints: Grease and 8 mil vinyl wrap plastic cover.
 8. Bronze wedges with current capacity of 400 amps each for each joint as follows:
 - a. Less than 10-inch diameter pipe - 2 wedges.
 - b. 10-inch diameter pipe - 3 wedges.
 - c. 12-inch diameter pipe - 4 wedges.
 - d. Greater than 12-inch diameter pipe - 6 wedges.

2.3 VALVES

- A. Gate valves: Cast iron body, bronze mounted. Furnish valves 3-inches through 24-inches that conform to the requirements of AWWA C509, resilient-seated, non-rising stem design with "O" ring seals and 2-inch square operator nut.
- B. Operating direction: Open counterclockwise.

2.4 VALVE BOX

- A. Buried Valves In Traffic Areas: 2 piece, cast iron, screw adjustable sleeve, 5 - 1/4-inch shaft, with a drop lid.
- B. Buried Valves in non-traffic Areas: Slip type of height required for the installation.

- C. Markings: On cover of valve box, cast the appropriate utility lettering.

2.5 DRAINS

- A. Valves: 2-inch iron body, threaded, resilient seated gate valves.
- B. Fittings: 2-inch brass adapters.
- C. Clamps: 2-inch stainless steel.
- D. Pipe: Low density polyethylene, I.P.S. only.

2.6 CONCRETE

- A. Cast-in-place, Class 3000 minimum.

2.7 PIPING IDENTIFICATION

- A. Tracer Tape: Provide metallic foil type tracer tape, 2-inches wide and made of inert plastic material marked "IRRIGATION ONLY" with bold letters approximately 2 inches high. The message shall be printed at maximum intervals of 2 feet.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify trench excavation is ready to receive work, and dimensions, and elevations are as indicated.
- B. Commencing installation means acceptance of existing conditions.

3.2 PREPARATION

- A. Hand trim excavations to required elevations.
- B. Remove stones large than 2-inches or other hard matter that could damage pipe or impede backfilling or compaction.
- C. Examine areas and conditions under which materials and products are to be installed. Do not proceed with system installation until unsatisfactory conditions have been corrected in manner acceptable to system installer.
- D. Clearly identify and promptly set aside defective or damaged pipe.

- E. Use pipe cutting tool acceptable to pipe manufacturer.

3.3 INSTALLATION - PIPE AND FITTINGS

- A. Ductile Iron Pipe: Install per AWWA C600.
- B. Polyethylene Pipe: For 3-inches and smaller pipe follow AWWA C901. Install all other sizes per manufacturer's installation instructions.
- C. Wedges: Install metal wedges on all metal pipe systems.

3.4 INSTALLATION - CONCRETE THRUST BLOCKS

- A. Do not make hydrostatic tests until thrust block concrete has cured for at least 5-days.
- B. Provide thrust blocks on all plugs, caps, tees, hydrants and vertical or horizontal bends.
- C. Provide stainless steel or epoxy coated steel tie rods and clamps or shackles to restrain thrust.
- D. Unless otherwise indicated or directed by ENGINEER, place the base and bearing sides of thrust blocking directly against undisturbed earth.
- E. Sides of thrust blocking not subject to thrust may be placed against forms. Place thrust blocking so the fitting joints will be accessible for repair.

3.5 INSTALLATION - VALVES AND VALVE BOXES

- A. Ensure all parts are in working order.
- B. Set location of valves outside of sidewalk limits, driveway approaches, curb and gutter and other pedestrian or vehicular interference.
- C. Install valves plumb with stems pointing up.
- D. Set valve box over valve nut so operator's key is plumb with clearance in valve box when opening and closing the valve.
- E. Adjust box to finish grade.
- F. Clean all dirt or foreign material out of box.

3.6 INSTALLATION – TAPS

- A. Apply for and pay for applicable permits from water company for the indicated size and location of tap to water main. Comply with all connection requirements of water company.
- B. Make all service taps with a tapping machine acceptable to the water company. Use Teflon tape on all taps unless indicated otherwise.
- C. The minimum distance between taps is 24-inches, with a 5 deg. stagger. Do not make service taps within 24-inches of the end of pipe. Install taps at angle authorized by ENGINEER.
- D. Service saddles are required on all taps.

3.7 INSTALLATION - SERVICE LINES

- A. Replacing Existing Water Service Line: Follow AWWA C800, Utah public drinking water regulations and Utah plumbing code requirements.
- B. Looping Existing Water Service:
 - 1. Minimum pipe diameter 2-inch.
 - 2. Pinching tools used to close and open service lines may be used only if allowed by ENGINEER. When service line pinches cannot be returned to previous shape or flow, remove replace damaged portion of pipe
 - 3. Follow details shown in the Drawings.
- C. Meter box: Install meter boxes back of the curb, outside of sidewalks and driveway approaches and outside of other pedestrian and vehicular interference.

3.8 INSTALLATION - WATER MAIN LOOP

- A. Existing water mains may not match standard size. Pothole to obtain actual pipe diameter and match size.
- B. Do not shutdown pipeline until couplings and fittings are on site. Coordinate shutdown with water company and affected residents or businesses.
- C. Provide thrust blocks except where joints are welded. Follow details shown on the Drawings.

3.10 BACKFILLING

- A. Prior to Backfilling: Secure ENGINEER's acceptance of brass wedge installations and concrete thrust block installations.

3.11 PRESSURE TEST

- A. Hydrostatic test:
 - 1. Provide 225 psi test pressure for 2-hours unless specified otherwise.
 - 2. Provide air release taps at pipeline's highest elevations and expel all air before the test. Insert permanent plugs after test has been completed.
 - 3. No piping installation will be acceptable until the leakage is less than the amount allowed by industry standards for the type of pipe material being tested or if no standard prevails than the number of gallons per-hour is determined by the formula:

$$Q = \frac{LDx\sqrt{P}}{133,200}$$

Where: Q = allowable leakage, in gallons per-hour.

L = length of pipe under test in feet.

D = nominal diameter of pipe in inches

P = average test pressure, in pounds per square inch (gauge.)

- 4. Locate and repair defective joints and retest until the leakage rate is less than allowable.
- 5. Repair any noticeable leakage even if total leakage is less than allowable.

END OF ATTACHMENT

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SECTION 02142 S

DEWATERING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. General Dewatering:
 - 1. Requirements for dewatering systems and appurtenances to be used during construction as required to keep the excavation free of water.
 - 2. Site sump pumping, well pointing, vertical sand drains, and deep well drainage systems.
 - 3. Dewatering methods as necessary to perform the construction.
- B. Western Irrigation Canal Bypass:
 - 1. The existing Western Irrigation Canal is currently and continuously conveying irrigation and storm water. Do not interrupt those functions except as specified herein. Coordinate and perform the work to avoid any interference with normal flow of the canal.
 - 2. Provide a method for diverting the Western Irrigation Canal flow during the progress of the work.

1.2 RELATED SECTIONS

- A. Section 01571: Temporary Environmental Controls.
- B. Section 02061: Select Aggregate.
- C. Section 02075: Geotextiles.
- D. Section 02316: Roadway Excavation.
- E. Section 02317: Structural Excavation.
- F. Section 02318: Ditch Excavation.
- G. Section 02610: Pipe Culverts.
- H. Section 02621 S: Spring Development

- I. Section 02622: Underdrain.
- J. Section 02645: Precast Concrete Box Culvert.
- K. Section 02646: Cast-in-Place Concrete Box Culvert

1.3 INFORMATION TO BE PROVIDED

- A. Before dewatering is commenced, provide information to the ENGINEER outlining the method, installation and details of the proposed dewatering system. Provide plans setting forth the details of the proposed dewatering systems. Provide sufficient detail to indicate sizes of pumps, piping, appurtenances, the ultimate disposal point for water and to indicate the overall completeness and effectiveness of the proposed system.
- B. Do not create softening of the bottom of excavations, or formation of "quick" conditions or "boils" as a result of dewatering. Prevent removal of the natural soils.
- C. Select the particular method or methods of dewatering to be employed.
- D. Submit a detailed plan and schedule for installation of the temporary bypassing and dewatering system during the construction of the Western Canal box culvert including:
 - 1. Operations Work Plan.
 - 2. Proposed temporary facilities.

1.4 PAYMENT PROCEDURES

- A. Dewatering systems and methods are considered incidental to work requiring dewatering.
- B. Procedures and methods used to bypass the Western Irrigation Canal crossing are considered incidental to the construction of the box culvert.

PART 2 PRODUCTS

2.1 GENERAL

- A. Furnish, install, operate and maintain all machinery, appliances, and equipment to maintain all excavations free from water during construction. Dewater and dispose of the water so as not to cause injury to public or private property, or to cause a nuisance or menace to the public.

- B. Install and operate dewatering systems so that the groundwater level outside the excavation is not reduced to the extent which would cause damage or endanger adjacent structures or property.
- C. Limit vertical settlement and horizontal movement of existing structures, buildings, and utilities to 2-inch, or less.
- D. Lower static water level a minimum of two feet below the bottom of the excavation in order to maintain the undisturbed state of the foundation soils and to facilitate the placement of fill or backfill, compacted to the required density.

2.2 SUMP PUMPING

- A. Provide sumps no deeper than 5 feet.
- B. Locate at the low point of excavation.
- C. Grade excavations to drain to the sumps.

2.3 WELL POINTS

- A. Seal annular space between the pipe and the borehole of the well point near the top of the well point to prevent vacuum leaks.
- B. Do not disturb in-situ material during installation or operation.

2.4 DEEP WELLS

- A. Case deep wells with PVC, steel, or other suitable casing material.
- B. Provide perforated section at the water producing zone.
- C. The annular zone between the casing and the bore hole may be gravel packed.

2.5 VERTICAL SAND DRAINS

- A. Install vertical sand drains with minimum disturbance to in-situ material.

2.6 WESTERN CANAL TEMPORARY BYPASS FACILITIES

- A. Provide and maintain temporary bypassing and dewatering systems around the existing Western Irrigation Canal box culvert to bypass canal flow and lower the groundwater sufficiently to perform the required work.

- B. Submit detailed drawings showing size and capacity of all equipment, piping, power, controls, and weather protection for all proposed temporary systems.

PART 3 EXECUTION

3.1 GENERAL

- A. Operate dewatering systems continuously.
- B. Do not shut down between shifts, on holidays, on weekends, or during work stoppages.
- C. Control surface water to prevent entry into excavations.

3.2 RELEASE OF GROUNDWATER

- A. Do not disturb the state of the natural foundation soils with release of groundwater at its static level.
 - 1. Prevent disturbance of compacted backfill.
 - 2. Prevent flotation or movement of structures and piping.
- B. Obtain a Utah Pollutant Discharge Elimination System (UPDES) permit for disposal of water from construction dewatering activities, prior to any dewatering activities. Comply with all permit requirements.
- C. Obtain all other permits and/or approvals pertaining to use of a dewatering system.

3.3 WESTERN IRRIGATION CANAL BYPASS

- A. At the time scheduled in the approved operations Work Plan, install dikes, dams, bulkheads, culverts, pumps and piping and other dewatering system appurtenances as necessary to bypass the existing flow around the work site.
- B. Operate all dikes, dams, bulkheads, culverts, pumps, piping, dewatering, and bypass systems successfully prior to taking the existing Western Irrigation Canal culvert out of service.
- C. Do not remove temporary bypass facilities from service until the new box culvert has been satisfactorily tested and accepted.

3.4 SEQUENCING

- A. Completed portions of the underdrain piping may be incorporated into the dewatering system to collect groundwater.
- B. Completed reaches of storm drain piping may be incorporated into the dewatering system to convey dewatering water to the ultimate disposal location.

END OF SECTION

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SECTION 02221 M

REMOVE STRUCTURE AND OBSTRUCTION

PART 1 GENERAL

Delete paragraph A of Subsection **1.1 SECTION INCLUDES**, and replace with the following:

- A. Remove and dispose of structures, Underground Storage Tanks (UST's), fuel dispensing equipment and utility items or other obstructions that interfere with construction on or off the site, including foundations, manholes, miscellaneous concrete structures, block walls, culverts, fences, guardrail, concrete work, septic tanks, trees, and concrete weirs.

Add the following paragraph to Subsection **1.1 SECTION INCLUDES**:

- C. Remove and dispose of public and private utilities including: water system piping, fittings, valves and appurtenances as indicated on the Plans.

Add the following paragraphs to Subsection **1.3 PROJECT/SITE CONDITIONS**:

- B. Salvage all existing water system components including pipe, fittings and valves removed.
 - 1. Contact representatives of the Bona Vista Water Improvement District and/or Pleasant View City and/or North Ogden City and/or Pine View Water System indicated in the Utility Contact List in Section 00727M to confirm salvage status of removed items.
- C. Site Access and Temporary Controls: Conduct building demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- D. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Engineer and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.

PART 3 EXECUTION

Delete paragraph A of Subsection **3.1 PREPARATION**, and replace with the following:

- A. Predemolition Conference: Conduct a Predemolition Conference at Project site. Review methods and procedures related to building demolition with the Engineer including, but not limited to, the following:
 - 1. Inspect and discuss condition of construction to be demolished.
 - 2. Review structural load limitations of existing structures.
 - 3. Review and finalize building demolition schedule and verify availability of demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Review and finalize protection requirements

Add the following paragraphs to Subsection **3.3 REMOVAL AND DISPOSAL GUIDELINES**:

- F. Refrigerant: Remove and store refrigerant according to 40 CFR 82 and regulations of authorities having jurisdiction.
- G. Removal of Underground Storage Tanks (UST): Remove UST's in accordance with R311-201-2 of the Utah Administrative Code.

Add the following paragraph to Subsection **3.4 BUILDING, BASEMENT, AND FOUNDATION DEMOLITION**:

- C. Remove fuel dispensing equipment, piping and appurtenances, and electrical power and control wiring and conduit.

Add the following paragraph to Subsection **3.9 BURIED FUEL TANK DEMOLITION**:

- D. Removal of Underground Storage Tanks (UST) must be performed by, or under the on-site supervision, of a Utah certified UST remover (R311-201-2.)

Add the following Subsections to **PART 3 EXECUTION**:

3.18 WATERLINES AND WATER VALVES

- A. Contact the water system representative to coordinate the work and identify salvageable valves.

- B. Prior to removing any waterline piping, fittings or valves, isolate piping reach and perform work in accordance with Section 02079 S, Attachments A, B, C and/or D as appropriate.
- C. Excavate as needed and remove the piping, fittings and valves. Do not damage salvageable materials. Deliver salvageable materials to the water system authority. Dispose of unusable material in a manner acceptable to the Engineer.

3.19 BLOCK WALLS

- A. Contact the Owner of the Wasatch View Estates to coordinate removal of landscape blocks.

END OF SECTION

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SECTION 02222 S

SITE DEMOLITION - PAVEMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Demolish, remove, and dispose of roadway pavement, curb, gutter, sidewalk, driveway approach, waterway, and similar hard surfaces.
- B. Recompact existing untreated base course following pavement removal.

1.2 RELATED SECTIONS

- A. Section 00727: Control of Work.
- B. Section 02705: Pavement Sawing.
- C. Section 02324: Compaction.
- D. Section 02721: Untreated Base Course (UTBC).

PART 2 PRODUCTS Not used.

PART 3 EXECUTION

3.1 PREPARATION

- A. Review all work procedures with Engineer.
- B. Coordinate utility location in accordance with Section 00727, article, "Cooperation With Utilities."
- C. Preserve all active utilities.
- D. Detours according to traffic control plan.

3.2 ASPHALT PAVEMENT, CONCRETE PAVEMENT REMOVAL

- A. Saw cut existing pavement on the designated line with straight vertical edges free from irregularities when joining new construction to existing pavement. Refer to Section 02705.
- B. Completely remove pavement down to the underlying base course or subgrade.
- C. Recompect existing untreated base course inside saw cut limits following removal of pavement from existing travel lanes of SR-134 (2700 North) from I-15 to 1000 West. Refer to Section 02721.
- D. Dispose of removed asphalt pavement as per Section 02224.

3.3 OBLITERATION

- A. Break up concrete into pieces not over 1 ft² in area. Scarify and cover broken concrete with at least 1 ft of suitable backfill material.
- B. Fill depressions and blend with the surrounding contours.
- C. Grade materials either along the toe of an embankment or into a depression or borrow pit. Cover with at least 1 ft of suitable backfill material.

3.4 CONCRETE SIDEWALK, CONCRETE DRIVEWAY REMOVAL

- A. Remove concrete to the nearest expansion joint or saw cut to provide proper grades and connections.
- B. Make concrete cuts straight, vertical to the surface, full depth, and free from irregularities. Refer to Section 02705.
- C. Thoroughly clean all adhering materials from existing reinforcement.
- D. Do not damage concrete designated to remain.

**3.5 CONCRETE CURB, CONCRETE CURB AND GUTTER, RAISED ISLAND,
BITUMINOUS CURB REMOVAL**

- A. Remove curb, curb and gutter, gutters, raised island, bituminous curb, and parts of such improvements to an existing joint or joint sawed with a vertical face.
- B. Remove material to provide proper grades and connections.

END OF SECTION

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SECTION 02224 M

DISPOSE OF ASPHALT PAVEMENT

PART 1 GENERAL

Add the following paragraphs to Subsection **1.2 RELATED SECTIONS**:

- D. Section 02056M: Common Fill
- E. Section 02969S: Optional Use of Reclaimed Asphalt pavement

Delete Subsection **1.3 PAYMENT PROCEDURES** and replace with the following:

1.3 PAYMENT PROCEDURES

- A. Include payment for asphalt pavement removal and disposal of asphalt pavement under Section 02222.

PART 3 EXECUTION

Delete Subsection **3.1 DISPOSAL** and replace with the following:

3.1 DISPOSAL

- A. On the Right-of-way
 - 1. Use as embankment. Refer to Section 02330.
 - 2. Refer to Section 02056M and Section 02969S.

END OF SECTION

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SECTION 02316 M

ROADWAY EXCAVATION

PART 1 GENERAL

Add the following paragraph to Subsection **1.1 SECTION INCLUDES**:

- D. Excavation and stockpiling of material meeting the requirements of AASHTO Type A-6 (clay) material for subsequent use in constructing earthen berm.

Delete paragraph A from Subsection **1.3 PAYMENT PROCEDURES** and replace with the following:

- A. Pay for removal and disposal of asphalt pavement under Section 02222.

Add the following paragraph to Subsection **1.4 REFERENCES**:

- C. AASHTO M 145: Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes.

Add the following paragraphs to Subsection **1.8 STOCKPILING AND HANDLING**:

- C. Verify Type A-6 material stockpile volume is adequate for the construction of earthen berm.
- D. Stockpile Type A-6 material in a location approved by the Engineer.
- E. Place material excavated from Baker Pond in location indicated on the plans and as directed by the Engineer.
- F. Place material suitable for agricultural use excavated from locations adjacent to Parcel 0134:57:E in farm field located at that property. Place and spread the excavated material level, to a line and grade suitable for irrigation, as directed by the Engineer.

PART 2 PRODUCTS

Add the following Subsection to **PART 2 PRODUCTS**:

2.5 BERM MATERIAL

- A. Demonstrate to the Department material for earthen berm construction meets the requirements of AASHTO Type A-6 material.
- B. Segregate AASHTO Type A-6 material stockpile from other stockpiles.

PART 3 EXECUTION

Add the following paragraphs to Subsection **3.5 EXCAVATION - STANDARD PROCEDURES**:

- G. Excavate Type A-6 material for constructing earthen berm at Barker Pond location (as identified in the Plans) from project site as directed by Engineer.
- H. Place excavated material from Barker Pond and roadway section adjacent to Parcel 0134:57:E in locations indicated on plans and grade as directed by the Engineer. Coordinate work with the property owners.

Delete Subsection **3.9 ASPHALT PAVEMENT** from this **PART 3 EXECUTION**.

END OF SECTION

**SPECIAL PROVISION
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SECTION 02318 M

DITCH EXCAVATION

PART 1 GENERAL

Delete Subsection **1.1 SECTION INCLUDES**, and replace with the following:

1.1 SECTION INCLUDES

- A. Materials and procedures for small ditch, surface ditch, and irrigation ditch excavation.

Add the following to paragraph to Subsection **1.3 DEFINITIONS**:

- C. Irrigation Ditch: Construct ditch to the dimensions shown in the Plans.

PART 3 EXECUTION

Add the following Subsection to **PART 3 EXECUTION**:

3.3 IRRIGATION DITCH

- A. Form the ditch as shown in the plans.
- B. Do not disrupt irrigation watering schedules.

END OF SECTION

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SECTION 02610 M

PIPE CULVERTS

PART 1 GENERAL

Add the following paragraphs to Subsection **1.1 SECTION INCLUDES**:

- D. Materials and procedures for installing plugs in the end of new pipe culverts for future connections.
- E. Materials and procedures for installing a transition pipe connecting a 36-inch circular pipe culvert to a 2-foot by 3-foot box culvert.
- F. Materials and procedures for connection existing roof drains to the new storm drain system.
- G. Materials and procedures for installing detention basin overflow piping consisting of 30-inch pipe culvert, seepage collars, headwall, bar cage, steel plate and standard trash rack.

Add the following paragraph to Subsection **1.2 RELATED SECTIONS**:

- F. Section 02645S: Precast Concrete Box Culvert

Add the following Subsection to **PART 1 GENERAL**:

1.4 ACCEPTANCE CRITERIA

- A. Pipe culverts accepted according to the criteria outlined in this section. The Engineer may require testing of any or all culverts for compliance with the criteria. The Engineer reviews and approves proposed corrections. The acceptance of pipe culvert is based on five requirements: 1) Horizontal and vertical alignment deviations; 2) Barrel distortions; 3) Damages to the pipe; 4) Joint fitting; 5) Coating integrity. Following is a description of the requirements:

1. **Horizontal and vertical alignment deviations**
Measure horizontal and vertical installation deviations from the culvert's final construction survey stakes. Do not exceed the tolerances shown on Table A of this section.
2. **Barrel distortions**
Measure load distortions along a straight line through the centerline of the pipe. Do not exceed the tolerances shown on Table A of this section.
3. **Damaged culverts**
Remove or repair pipe culverts that are irregular or distorted, have cracks, dents, holes, splits, or loose nuts or bolts. Remove all pipes with a damaged invert.
4. **Joints**
Remove all pipe culverts that have damaged joints that allow the culvert to leak. Re-install or remove all pipes that do not connect properly. Connect joints according to manufacturers' recommendations. Provide a manufacturer Certificate of Compliance for the pipe joints.
5. **Coating integrity**
Repair all pipe coatings, according to manufacturer recommendations, that don't have the required thickness or that have been damaged. Provide a Manufacturer Certificate of compliance for the pipe coating.

Table - A TOLERANCES				
Alignment Tolerances			Distortions Gradual Ovaling or Elliptical	
Design Grade	Max. Line Deviation	Max. Grade Deviation	Nominal Pipe Diameter *	Maximum Distortions **
	Percent of Nominal Pipe Diameter	inch/100feet	inch	Inch
> 1 %	5	1 1/2	18	+/- 0 - 7/8
≤ 1 %	5	1	24	+/- 1 - 1/4
			30	+/- 1 - 1/2
			36	+/- 1 - 7/8
< 0.5 %		± 0.5	42	+/- 2
			48 +/-	+/- 2 - 3/8
Notes For nominal culvert diameters larger than 48 inch, use measured diameter to calculate 5 percent allowable distortion. * Maximum distortions are used to define dimensions associated with allowable pipe deflections. Measure directly or by use of a mandrel test. **				

PART 2 PRODUCTS

Add the following Subsections to **PART 2 PRODUCTS**:

2.5 PIPE CULVERT PLUGS

- A. Provide water tight, removable plugs of the same diameter as the piping.

2.6 TRANSITION PIPE

- A. Fabricate in accordance with and to the requirements of Section 02645.
- B. Provide gasketed joints at connections to 36-inch circular pipe culvert inlet and 2-foot by 3-foot box culvert outlet.

2.7 ROOF DRAIN CONNECTIONS

- A. Provide Class C piping in accordance with Table 1.
- B. Provide fittings, cleanouts, and appurtenances as necessary to install roof drain connections.

2.8 DETENTION BASIN OVERFLOW PIPING

- A. Piping: 30-inch Class C pipe, smooth lined.
- B. Seepage collars and headwall:
 - 1. Concrete Class AA(AE). Refer to Section 03055.
 - 2. Reinforcing: Refer to Section 03211, Part 2, article 2.1. Deformed billet-steel reinforcing bars as specified.
- C. Steel plate and standard trash rack: Refer to Standard Drawings, GF-11 and GF-12, and Section 05120.
 - 1. Fabricate to dimensions shown on Sheet DT-26.
 - 2. Hot-dip galvanize after fabrication. AASHTO M 111.

PART 3 EXECUTION

Add the following Subsections to **PART 3 EXECUTION**:

3.10 INSTALLATION OF PIPE CULVERT PLUGS

- A. Install pipe culvert plugs at future connection stub locations indicated in the Plans.

3.11 INSTALLATION OF TRANSITION PIPE

- A. Install transition pipe in accordance with Section 02645 and as shown in the Plans.

3.12 INSTALLATION OF ROOF DRAIN CONNECTIONS

- A. Coordinate work with the property Owner.
- B. Slope roof drains at 1-percent (minimum).
- C. Make connections to the nearest catch basin or cleanout box.

3.13 INSTALLATION OF DETENTION BASIN OVERFLOW PIPING

- A. Provide as shown on Sheet DT-26.

END OF SECTION

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SECTION 02621 S

SPRING DEVELOPMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Materials and procedures for constructing improvements to control the seepage discharge from an existing artesian spring.

1.2 RELATED SECTIONS

- A. Section 02061: Select Aggregate.
- B. Section 02075: Geotextiles.
- C. Section 02316: Roadway Excavation.
- D. Section 02324: Compaction.
- E. Section 02610: Pipe Culverts.
- F. Section 02622: Underdrain.

1.3 REFERENCES

- A. AASHTO M 252: Corrugated Polyethylene Drainage Pipe.
- B. AASHTO T 99: Moisture-Density Relations of Soils Using a 2.5 kg (5.5 lb) Rammer and a 305-mm (12 in.) drop.

PART 2 PRODUCTS

2.1 PIPE

- A. Corrugated Polyethylene Drainage Pipe: ASHTO M 252.

2.2 GEOTEXTILES

- A. Refer to Section 02075.

2.3 UNDERDRAIN GRANULAR BACKFILL

- A. Refer to Section 02061.

2.4 WATERPROOF MEMBRANE

- A. 40 mil high density polyethylene (HDPE) membrane.
1. Resin: New, first quality, compounded and manufactured specifically for producing geomembrane.
 2. Natural resin (without carbon black) meeting the following minimum requirements:

Property	Test Method	HDPE
Density [g/cm ³]	ASTM D 1505	0.932
Melt Flow Index [g/10 min.]	ASTM D 1238 (190/2.16)	≤ 1.0
OIT [minutes]	ASTM D 3895 (1 atm/200°C)	100

3. Smooth surfaced HDPE sheets meeting the following minimum requirements:

Property	Test Method	Min. Value
Minimum Average Thickness, mil	ASTM D 5199	40
Density, g/cm ³	ASTM D 1505	0.94
Carbon Black Content, %	ASTM D 1603	2.0
Tensile Properties (each direction):	ASTM D 638 Type IV, 2 ipm	
Strength at Yield, lb/in		84
Strength at Break, lb/in		162
Elongation at Yield, %	(1.3" gauge length)	13
Elongation at Break, %	(2.0" gauge length)	700
Tear Resistance, lb	ASTM D 1004	28
Puncture Resistance, lb	ASTM D 4833	79
Notched Constant Tensile Load, hours	ASTM D 5397, app.	400
Oxidative Induction Time, min.	ASTM D 3895	100

PART 3 EXECUTION

3.1 PLACEMENT

- A. Excavate to the limits indicated on the Plans.
- B. Place separation geotextiles to plan requirements, and in accordance with Section 02075.
- C. Place underdrain granular backfill in the excavated area in accordance with Section 02061.
- D. Place pipe in accordance with Sections 02610 and 02622, or as specified in the plans.
- E. Place HDPE membrane over underdrain granular backfill to the limits indicated on the Plans.
 - 1. Provide a 2-foot overlap for membrane sheets.
 - 2. Seal overlap between sheets with mastic.
- F. Compact backfill materials in accordance with Section 02324.

END OF SECTION

**SPECIAL PROVISION
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SECTION 02622 M

UNDERDRAIN

PART 3 EXECUTION

Replace paragraph A of Subsection **3.1 PLACEMENT** with the following:

3.1 PLACEMENT

- A. Excavate a trench to a depth of 3 inches below the underdrain pipe flow-line and to a width of the outside diameter of the pipe plus 1.25 feet.

Add the following paragraph G to Subsection **3.1 PLACEMENT**:

- G. Provide a pre-manufactured plug at the end of all underdrain pipes not connected to catch basin.

END OF SECTION

**SPECIAL PROVISION
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SECTION 02635 M

GRATES, SOLID COVERS, FRAMES, AND MANHOLE STEPS

PART 3 EXECUTION

Add the following Subsection to **PART 3 EXECUTION**:

3.2 CATCH BASINS LOCATED IN CURB

A. Install as shown in the following Plans:

Item To Be Installed	Drawing
Catch Basin Frame and Grate with Curb Box	DT-23

END OF SECTION

**SPECIAL PROVISION
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SECTION 02645 S

PRECAST CONCRETE BOX CULVERT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Material and procedures for fabricating and installing standard single cell precast concrete box culvert and single cell precast concrete box culvert with post tensioning (Western Irrigation Canal crossing on 2700 North, Structure No. E-2515.)

1.2 RELATED SECTIONS

- A. Section 02056: Common Fill.
- B. Section 02061: Select Aggregate.
- C. Section 02317: Structural Excavation.
- D. Section 02324: Compaction.
- E. Section 03055: Portland Cement Concrete.
- F. Section 03211: Reinforcing Steel and Welded Wire.
- G. Section 03320S: Box Culvert Alternatives.
- H. Section 03390: Concrete Curing.
- I. Section 03412: Prestressed Concrete.

1.3 REFERENCES

- A. AASHTO M 85: Portland Cement.
- B. AASHTO M 198: Joints for Circular Concrete Sewer and Culvert Pipe Using Flexible Watertight Gaskets.

- C. AASHTO M 259: Precast Reinforced Concrete Box Sections for Culverts, Storm Drains, and Sewers.
- D. AASHTO M 273: Precast Reinforced Concrete Box Sections for Culverts, Storm Drains, and Sewers with Less Than 2 Feet Of Cover Subjected to Highway Loadings.
- E. ASTM M 416: Steel Strand, Uncoated Seven-Wire for Prestressed Concrete.

1.4 SUBMITTALS

- A. Shop Drawings: Furnish to the Engineer.
 - 1. Shop drawings: 1 full-size 24 inch by 36 inch, and 4 half-size 11-1/2 inch by 17 inch sheets with a 1-1/2 inch blank margin on the left-hand edge.
 - 2. Place the State project designation data in the lower right-hand corner of each sheet.
 - 3. For post-tensioning connection design, submit computations with shop drawings which show tendon layout, dead-end and stressing-end locations, and tendon support layouts with detail necessary for installation. On the post-tensioning detail drawings, show details of type, size, and number of strands, bars, wires per duct, anchorage devices, duct profiles, grouting and venting ports.
 - 4. Prepare shop drawings under seal of a Professional Engineer.
- B. Department rejects units fabricated prior to written approval.

1.5 ACCEPTANCE

- A. Department rejects pre-cast box sections with an average compressive strength of the three cylinders that is less than 5000 psi.

PART 2 PRODUCTS

2.1 CONCRETE

- A. Wet Cast Concrete: Class 4A(AE). Follow Section 03055.
- B. Dry Cast Concrete:
 - 1. Minimum cement content: 565 lb/yd³ of concrete.
 - 2. Maximum Water/cement Ratio: 0.15 gal/lb.
 - 3. Mix Design: Submit for approval.

2.2 REINFORCING STEEL AND WELDED WIRE

- A. Refer to Section 03211, Part 2.
- B. Meet AASHTO M 259, and AASHTO M 273.

2.3 POST-TENSIONING MATERIAL SPECIFICATIONS

- A. Concrete: Use concrete meeting the requirement of Section 03412, Paragraph 2.1.
- B. Post-tensioning tendon: Use prestressing steel meeting the requirement of Section 03412, Paragraph 2.2 and conforming to ASTM M 416 Grade 270 k, seven-wire low-relaxation strand, with a nominal diameter of ½-inch, tensile strength of 270 ksi and typically anchored near 75-percent of its ultimate strength.
- C. Design anchorages and couplers to develop at least 95-percent of the minimum specified ultimate strength of tendon.
- D. Ducts:
 - 1. Duct, whether of metal or polyethylene: Mortar-tight and nonreactive with concrete, prestressing steel and the filler material.
 - 2. Size of Ducts: Duct cross section twice the gross cross section of the tendons.
- E. Grout: Use material conforming to the following requirement:
 - 1. Portland Cement: Conform to AASHTO M 85 Type I, II or III. Cement Use fresh cement for grouting and which does not contain any lumps or other indication of hydration.
 - 2. Admixtures, if used: Use admixtures which impart the properties of low-water content, good flowability, minimum bleed, and expansion if desired. Do not use admixtures which contain chemicals in quantities that may have harmful effect on the prestressing steel or cement.

2.4 FLEXIBLE GASKET

- A. Meet AASHTO M 198.
- B. 1 inch minimum initial thickness.
- C. 2 square inches minimum in cross section.

2.5 QUALITY ASSURANCE

- A. Department pre-qualifies manufacturers of pre-cast concrete box culvert sections as a supplier of pre-cast concrete products in accordance with “Quality Management Plan: Pre-cast/Prestressed Concrete Structures.”
- B. Permanently mark each precast unit with date of casting and identification number supplied by the inspector. Stamp markings in fresh concrete.
- C. Prevent cracking or damage during handling and storage of precast units.
- D. Replace cracked or damaged precast units at no additional cost to the Department.

PART 3 EXECUTION

3.1 MANUFACTURE

- A. Meet AASHTO M 259, and AASHTO M 273.
- B. Portland Cement Concrete: Follow Section 03055.
- C. Concrete Curing.
 - 1. Water Curing: Cure the box sections by any method that will keep the sections moist until concrete strength of 4000 psi is reached.
 - 2. Steam Curing: Follow Section 03390, Paragraph 3.10.

3.2 INSTALLATION

- A. Installation with 2 ft or less cover, follow AASHTO M 273.
- B. Installation with greater than 2 ft of cover, follow AASHTO M 259.
- C. Concrete Curing: Follow Section 03390.

3.3 STEEL REINFORCEMENT

- A. Follow Section 03211, Paragraph 3.1.

3.4 JOINTS

- A. Place sealing material on the mating surface of the joint prior to seating the adjoining box section.

- B. Make joint opening between box sections less than 1 inch measured face to face of the concrete.
 - 1. Reject the box section(s) when the installation tolerance cannot be met due to casting variations.
 - 2. Prevent soil from being forced into the joint as the box sections are placed.
- C. Indicate shear transfer for the boxes on shop drawings by a method or device capable of transferring a minimum shear load of 3.015 kips/ft of joint width through the top slab of adjacent units.

3.5 LIFTING HOLES

- A. A maximum of four lifting holes may be provided in the top slab, each having a maximum diameter of 3 inches.
- B. Locate holes to avoid interference with the reinforcing steel.
- C. Plug holes with a 1/1 sand to cement grout.

3.6 CONNECTION TO CAST-IN-PLACE CONCRETE

- A. Where precast box sections join cast-in-place concrete, project the reinforcing steel a minimum of 12 inches out of the precast box section and square off the concrete face.

3.7 POST TENSION CONNECTION

- A. Post tensioning design based on following criteria:
 - 1. The total post tension force is the sum of the force required to overcome soil friction plus the force required to create a pressure of 10 psi over the cross section of the culvert.
 - 2. Maximum total post tension force should not create a pressure greater 100 psi over the cross section of the culvert.
 - 3. Minimum total post tension force is 370 kips.
 - 4. Maximum load on a 1/2 in diameter strand is 30,983 lbs.
 - 5. Use a coefficient of soil friction of 0.5.
 - 6. Place strands symmetrically.
 - 7. Use minimum of 4 strands.
 - 8. Maximum strand spacing of 8 feet. (except for culverts less than 12 foot span).
 - 9. Minimum strand spacing of 2 feet.

- B. Ducts.
1. Placement. Rigidly support ducts at the proper locations in the forms by ties to reinforcing steel. Use ties that are adequate to prevent displacement during concrete placement. Maintain a tolerance 1/4 in for duct position. Secure grout openings and vents to the duct and to either the forms or to reinforcing steel to prevent displacement during concrete placing operations. Cover the ends of ducts to prevent the entry of water or debris.
 2. Vent and grout tube. Affix a grout tube to the duct at each end of box culvert. Vent ducts at maximum 65 ft intervals.
- C. Post tension tendon.
1. Packaging, storing and handling. Protect prestressing steel against physical damage and rust or other results of corrosion at all times from manufacture to grouting.
 2. Before installing prestressing steel in the ducts, demonstrate that the ducts are free of water and debris. Pull the total number of strands in an individual tendon through the duct as a unit, or pull or push individual strands through the duct.
 3. Protection of Steel after Installation. Continuously protect prestressing steel against rust or other corrosion by using a corrosion inhibitor placed in the ducts or directly applied to the steel, unless the prestressed steel is grouted within 10 days after installation in the duct.
- D. Anchorage. Properly place all anchorage materials according to the approved working drawings and the requirements of the anchorage device supplier. Maintain a tolerance of 1/4 in for the position of tendon anchorage bearing plates.
- E. Tensioning.
1. General. Tension prestressing steel using approved jacking equipment to produce the forces. During stressing of strand, individual wire failures may be accepted if not more than one wire in any strand is broken and the area of broken wires does not exceed 2% of the total area of the prestressing steel in the duct.
 2. Sequence of Stressing. Stress simultaneously all strands in each tendon in bottom slab. Then stress all strands in top slab simultaneously. Last stress tendons in center of walls if applicable.
 3. Measurement of stress. Provide a record of gauge pressures and tendon elongations for each tendon for approval. Measure elongation to an accuracy of 1/16 in. Do not cut off stressing tails until the stressing records have been approved.
- F. Grouting.
1. General. Permanently protect prestressing steel by completely filling the void space between the duct and the tendon with grout.
 2. Preparation of Ducts. Clean all ducts of deleterious materials.

3. Mixing of Grout. Mix water, Portland Cement and admixture required long enough to obtain a uniform, thoroughly blended grout.
4. Injection of Grout. Open all grout and vent openings when starting to grout. Pump the grout through the duct and continuously waster at the outlet until no visible slugs of water or air are ejected. Allow grout to flow from the first vent after the inlet pipe until any residual flushing water or entrapped air has been removed, and then cap or otherwise close the vent. Close the remaining vents in sequence in the same manner. To ensure that the tendon remains filled out, close the outlet and allow the pumping pressure to be raised to not less than 70 psi and held for at least 15 seconds. Close the valve at the inlet while maintaining this pressure. Do not remove plugs, caps, or valves until the grout has set.
5. Temperature and Grout Strength. Maintain the temperature of the concrete above 35°F from the time of grouting until the job site cured 2 inch cubes of grout reach a minimum required compressive strength of 800 psi. Limit the temperature of the grout to a maximum of 90°F during mixing and pumping.

3.8 REPAIRS

- A. Box sections may be repaired as allowed in the referenced specification only when approved in advance by the Engineer.
- B. Making repairs in advance of approval will be cause for rejection.

3.9 MINIMUM LENGTH

- A. No individual standard box segment may be less than 5 ft.

3.10 BEDDING AND BACKFILL

- A. Excavate the material under the box location in compliance with Section 02317, paragraph 3.2, "Excavation," to a minimum depth of 4 inches.
- B. Backfill with granular backfill borrow as specified in Section 02056, Paragraph 2.3 and Section 02061, Paragraph 2.1.
- C. Compact following Section 02324.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 02716 S

STRESS ABSORBING MEMBRANE INTERFACE

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. This specification covers materials and construction requirements for producing and placing a Reflective Crack Relief bituminous mixture to be placed in one lift in conformance with the lines, grades, and typical cross sections shown on the plans, or established by the Engineer. The Stress Absorbing Membrane Interface is a highly elastic, impermeable hot mix interlayer that is designed to reduce reflective cracking from underlying pavements. The Stress Absorbing Membrane Interface is applied with a conventional paver and roller(s) directly on the underlying pavement. The Stress Absorbing Membrane Interface should be covered with a Hot Mix Asphalt (HMA) overlay.
- B. Unless otherwise stated, specification section references are from the version, in effect at the time of this contract, of the 2002 UDOT Standard Specifications for Road and Bridge Construction and its supplements.
- C. The Reflective Crack Relief bituminous mixture is a fine graded, highly elastomeric polymer modified asphalt mixture. The Reflective Crack Relief bituminous mixture shall meet all the requirements for Hot Mix Asphalt in Section 02741, except as modified herein.

PART 2 PRODUCTS

2.1 GENERAL

- A. Use materials conforming to 2002 UDOT Standard Specifications for Road and Bridge Construction unless otherwise noted.

2.2 ASPHALT BINDER

- A. Use asphalt binder meeting the requirements of AASHTO MP-1 with a PG high temperature of 64°C or higher and a PG low temperature of -34°C or lower as required to meet the Hveem Stability and Flexural Beam Fatigue mix requirements of section 3.4.1. In addition, meet the following:

<u>Test</u>	<u>Criteria</u>
RTFO Elastic Recovery, ASTM D6084 Section 6.2	45% minimum @ 25°C
Separation Test, ASTM D5976 Section 6.1	6°C difference max. after 48 hr.

2.3 BLENDED AGGREGATE

- A. Use blended aggregate consisting of natural sands, crushed fines and screenings that meet the criteria in Section 02741.
- B. Gradation. Meet the following ranges.

<u>Sieve</u>	<u>% Passing</u>
3/8 inch	100
No. 4	80 – 100
No. 8	60 – 85
No. 16	40 – 70
No. 30	25 – 55
No. 50	15 – 35
No. 100	8 – 20
No. 200	6 – 14

- C. Sand Equivalent. Minimum of 45% as determined by AASHTO T 176.

2.4 MATERIAL ACCEPTANCE

- A. Sample and test all aggregates and submit results to the Engineer for verification prior to use.

PART 3 EXECUTION

3.1 SAMPLING AND DESIGN

- A. Provide the Job Mix Formula (JMF), Hveem Stability testing, and Flexural Beam Fatigue testing to the Engineer. Provide quality control in accordance with an approved plan and technical support for production and placement of the Reflective Crack Relief bituminous mixture.

3.2 JOB MIX FORMULA

- A. Obtain, in the presence of the Engineer, representative samples of asphalt binder and mineral aggregates for testing. Use samples of materials of the size specified by the Engineer and submit to the Central Laboratory for testing. Develop and submit the Job Mix Formula, certified test results, and job control specimens for the Engineer's verification.
- B. No mixture will be accepted for use until the Job Mix Formula and job control specimens for the project are approved by the Engineer according to the requirements of this Section.
- C. Meet the master range specified for the Reflective Crack Relief bituminous mixture, and include the type and sources of all materials, the gradations of the aggregates, the relative quantity of each ingredient. State a definite percentage for each sieve fraction of aggregate and asphalt binder.
- D. Use the Job Mix Formula approved for the Reflective Crack Relief bituminous mixture until modified in writing by the Engineer. Identify a new Job Mix Formula when unsatisfactory results or other conditions occur, or should a source of material be changed.

3.3 PROPORTIONING

- A. Use proportions within the following limits. Do not use prior to approval of the Job Mix Formula and all materials and methods by the Engineer.

Asphalt binder, percent 7.0 minimum

3.4 MIXTURE TESTING PROCEDURES

- A. Test the Reflective Crack Relief bituminous mixture in accordance with AASHTO PP-28, *Standard Practice for Superpave Volumetric Design for Hot Mix Asphalt (HMA)*, except as noted herein. AASHTO accredited Laboratory is required.

3.5 JOB MIX FORMULA ACCEPTANCE CRITERIA

- A. Use Fifty gyrations ($N_{\max} = 50$) for gyratory compaction. Meet the following volumetric and performance requirements. Age the Reflective Crack Relief bituminous mixture for beam testing 4 hours at 135°C in accordance with AASHTO PP2-99 Section 7.2 (mechanical property testing), prior to compacting the beams.

<u>Test</u>	<u>Criteria</u>
Air Voids (Va), %	0.5 – 2.5
Voids in the Mineral Aggregate (VMA)	16.0 min.
Hveem Stability (AASHTO T-246) @ 140°F, 18.0 min. 60°C, 100mm molds, 50 gyrations	
Flexural Beam Fatigue (AASHTO TP-8), 2000 Microstrain, 10 Hz, 3±1% air voids*, 10°C	100,000 cycles, minimum for an average of 2 samples

*Note: The void requirement for the *Flexural Beam Fatigue* test specimens differs from the gyratory samples. The 3±1% air voids represents the in-place construction density.

- B. Job Control Specimens. Produce job control specimens using the proposed Job Mix Formula and compact to N_{\max} (50 gyrations). Determine the Voids in the Mineral Aggregate (VMA) and Air Voids (Va).
- C. Submit the Voids in the Mineral Aggregate (VMA) and Air Voids (Va) for the job control specimens to the Engineer. Do not place mixture on the project until the job control specimens have been verified by the Engineer.

3.6 CONSTRUCTION REQUIREMENTS AND QUALITY CONTROL.

- A. Surface and Base Preparation. Immediately prior to applying the Stress Absorbing Membrane Interface, thoroughly clean the surface of all vegetation, loose materials, dirt, mud, visible moisture and other objectionable materials. Fill joints larger than 1/2 inches wide as determined by the Engineer. Use ASTM non-expansive crackfiller or silicone joint material that will not be affected by the heat of the Reflective Crack Relief bituminous mixture during placement.

Prior to the placement of the Stress Absorbing Membrane Interface, fill large surface deformities (greater than 3 inches deep and 4 feet in diameter) with approved hot mix. During placement of the Stress Absorbing Membrane Interface, fill smaller pavement deformities, with the Reflective Crack Relief bituminous mixture.

- B. Weather Limitations. Do not place the Stress Absorbing Membrane Interface when either the air temperature or the temperature of the surface on which the Stress Absorbing Membrane Interface is to be placed is below 50°F. To reduce the occurrence of blisters, do not place the Stress Absorbing Membrane Interface on a wet surface nor within 24 hours of a rain.
- C. Application of Tack. Apply the tack in accordance with Section 02748, using undiluted tack. Use typical shot rates of 0.02 to 0.04 gallons per square yard (undiluted tack) as determined by the Engineer. Do not use cutback asphalt tack.

Place a tack coat between the hot mix overlay and the Stress Absorbing Membrane Interface with diluted or undiluted tack.

- D. Quality Control. Do not deviate from the Job Mix Formula, except as approved by the Engineer. Take control samples every 750 tons. Address other control criteria that may be needed through local aggregate quality control criteria.

- 1. Gradation Control. Limit deviation from the approved Job Mix Formula within the following:

<u>Sieve</u>	<u>Maximum Tolerance (% Passing by Weight (Mass))</u>
No. 8	±4.0
No. 200	±1.0

- 2. Gradation Adjustment. Limit adjustments to the Natural Sand (rounded sand) portion of the gradation to ±5% from the Job Mix Formula.
- 3. Mixture Control. Make control specimens from the Reflective Crack Relief bituminous mixture produced for the project in accordance with Section 02741. Meet the following volumetric criteria when compacted to N_{max} of 50 gyrations.

<u>Test</u>	<u>Allowed Deviation from JMF</u>
Air Voids (V _a), %	±0.5%
Voids in the Mineral Aggregate (VMA)	±1.0%

4. Asphalt Content Control. Control asphalt binder content within $\pm 0.3\%$ of the approved Job Mix Formula. Take samples of asphalt binder in accordance with UDOT Binder Quality Management Program.

E. SPREADING, COMPACTING, AND FINISHING

1. Place Stress Absorbing Membrane Interface with an average thickness of 1 inch with a tolerance of $\pm 1/4$ inch. Overlap longitudinal joints by at least 6" to eliminate construction joints over the existing longitudinal joints.
2. Temperatures. Do not heat the Reflective Crack Relief bituminous mixture above 350°F. Use Binder Supplier supplied specific mixing, laydown, and compaction temperatures, generally within the following ranges.

Operation	Temperature
Mixing	300-320°F
Laydown	280-300°F
Compaction	270-290°F

3. Compaction and Density. Start compaction operations promptly after placement of the Reflective Crack Relief bituminous mixture. Use only steel wheel rollers in the static mode for compaction of the mixture. Meet density of the in-place Stress Absorbing Membrane Interface of $97 \pm 2\%$ of the maximum specific gravity as determined by AASHTO T 209. Taking cores by placing paper in front of the paver at the location where the core will be taken, to prevent adhesion to the underlying pavement.
4. Release to Traffic and Overlay Placement. Cover the Stress Absorbing Membrane Interface with the binder course within five days after placement. Open the Stress Absorbing Membrane Interface to traffic or cover with the hot mix overlay after cooling to less than 140°F or as determined by the Engineer.
5. Appearance. After final rolling, the Stress Absorbing Membrane Interface should be deep black in appearance. The surface texture should be tight. Occasional small flushed areas approximately 1 foot by 1 foot are normal for the crack reducing purpose of the Stress Absorbing Membrane Interface. More flushing than this may indicate that the mixture is out of specification. The control criteria should be verified in areas of concern.
6. Removed and replace areas determined unacceptable by the Engineer, in accordance with this specification, at no additional cost to the Agency.
7. Blisters. Due to the impermeability of the Stress Absorbing Membrane Interface and moisture within the underlying pavement, small blisters may

occur in the mat after rolling. If blisters occur and do not disappear by the time of overlay, perforate, overlay, or remove with a roller any blisters as determined by the Engineer.

F. TEST STRIP

1. This work consists of constructing the Stress Absorbing Membrane Interface test strips for each mix design to determine the needed adjustments to meet specifications.
2. Construct test strips after approval of a Job Mix Formula and calibration of the bituminous mixture plant. Build test strip consisting of approximately 250 tons or one hour's production, whichever is less, of approved mix in a single lane within the project limits. Use the paver and rollers to be used on the project to place the test strip. Provide separate test strips for each mix design. Meet density and all other specification requirements for the mixture.
3. Determine density in accordance with this specification. If necessary, construct additional test strips until a rolling pattern has been established which will provide the specified density. Construct a new test strip whenever a change in the Job Mix Formula occurs, the compaction method or the compaction equipment is changed or unacceptable results occur. Remove test strips that do not meet the specified density as directed by the Engineer. Do not lay additional mix until a rolling pattern, acceptable to the Engineer, has been established on a test strip.
4. Damaged Areas. Replace any traffic-damaged or marred areas at no additional charge.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 02742 S

PROJECT SPECIFIC SURFACING REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Required PG Asphalt or emulsion.
- B. Number of gyrations to use for Superpave Mix Design.

PART 2 PRODUCTS

2.1 MIXES

- A. Hot Mix Asphalt (HMA): (Refer to bid item for size)
 - 1. PG 64-34 Asphalt.
 - 2. N_{initial} 8, N_{design} 100, N_{final} 160.
- B. Open-Graded Surface Course:
 - 1. PG 64-34 Asphalt.
- C. Chip Seal
 - 1. Type of asphalt emulsion: N/A.

PART 3 EXECUTION

Not used.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 02765 S

PAVEMENT MARKING PAINT

Delete Section 02765 and replace with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Furnish Acrylic Water Based pavement marking paint meeting Federal Specification TTP-1952 D. And refer to 2.1 for resin requirement.
- B. Apply to asphaltic or concrete pavement as edge lines, center lines, broken lines, guide lines, symbols and other related markings.
- C. Remove pavement markings.

1.2 REFERENCES

- A. AASHTO M 247: Glass Beads Used in Traffic Paint.
- B. ASTM D 562: Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using the Stormer-Type Viscometer.
- C. ASTM D 711: No-Pick-Up Time of Traffic Paint.
- D. ASTM D 2205: Selection of Tests for Traffic Paints
- E. ASTM D 2743: Uniformity of Traffic Paint Vehicle Solids by Spectroscopy and Gas Chromatography.
- F. ASTM D 3723: Pigment Content of Water-Emulsion Paints
- G. ASTM D 3960: Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings.
- H. ASTM D 4451: Pigment Content of Paints
- I. ASTM D 5381: X-Ray Fluorescence (XRF) Spectroscopy of Pigments and Extenders.

J. Federal Standards 595B, 37875, 33538, 11105 and TTP-1952 D.

1.3 ACCEPTANCE

- A. UDOT ENGINEER:
1. Randomly samples pavement marking paint and submits to Central Chemistry Lab for acceptance.
 2. Randomly generates the location of each test and removes all loose or excess beads from the line prior to testing.
 3. Visually inspects each line to verify bead adhesion and compliance with specified line dimensions requirements.
 4. Verifies that the paint and beads are being applied within specified tolerances a minimum of once each production day.
 5. Verify quantities used by measuring both paint and bead tanks prior to and after application.
- B. Repaint any line or symbol failing to meet bead adherence and dimensional requirements.
- C. Repaint any line or symbol failing to meet the minimum application requirements for paint or beads.

PART 2 PRODUCTS

2.1 PAINT

- A. Choose an approved pavement marking paint from the UDOT Research Division "Accepted Products Listing." Follow Federal Standards 595B, 37875, 33538, and 11105. Meet the following requirements for Acrylic Water Based Paint:

CIELAB (L*a*b*) D65/10E		
White	Yellow	Red
L* 91.9 to 95.6	L* 70.0 to 72.7	L* 31.4 to 33.4
a* -1.8 to -2.1	a* 22.5 to 24.8	a* 51.6 to 52.6
b* 3.8 to 2.2	b* 89.7 to 73.9	b* 34.1 to 35.1

1. No-track time: Not more than 5 minutes when tested according to ASTM D 711.
2. Volatile Organic Compounds Content: Less than 1.25 lbs/gal ASTM D 3960.
3. Free of lead, chromium, or other related heavy metals ASTM D 5381.
4. Pigment: Percent by weight: Acrylic Water Based minimum of 62.0 " 2.0 ASTM D 3723.

5. Total Solids: Percent by weight: Acrylic Water Based minimum of 77.0 ASTM D 2205.
6. Acrylic water based paint must contain a minimum of 40 percent, by weight, 100 percent acrylic cross-linkable emulsion as determined by infrared analysis and other chemical analysis available to UDOT. ASTM D 2205
7. ASTM D 562, ASTM D 2743, ASTM D 4451 and ASTM D 5381: Tests used to verify paint samples meet "Accepted Products Listing".

2.2 GLASS SPHERE (BEADS) USED IN PAVEMENT MARKING PAINT

- A. Specific Properties:
 1. Meet AASHTO M 247.
 2. Meet type II, uniform gradation.

PART 3 EXECUTION

3.1 PREPARATION

- A. Line Control.
 1. Establish control points at 100 ft intervals on tangent and at 50 ft intervals on curves.
 2. Maintain the line within 2 inches of the established control points and mark the roadway between control points as needed.
 - a. Remove paint that is not placed within tolerance of the established control points and replace at no expense to the Department. Refer to article 3.4
- B. Remove dirt, loose aggregate and other foreign material and follow manufacturer's recommendations for surface preparation.

3.2 APPLICATION

- A. Pavement Marking Paint: Apply at the following rates:
 1. 4 inch Solid Line: From 270 to 350 ft/gal
 2. 4 inch Broken Line: From 1080 to 1400 ft/gal
 3. 8 inch Solid Line: From 135 to 175 ft/gal
- B. Replace pavement markings that are less than 14 wet mils in thickness.
- C. No payment for pavement markings placed in excess of 18 wet mils in thickness.
- D. Painted Legends and Symbols 1 gallon per 100 square feet.

- E. Glass Sphere (Beads): Apply a minimum of 8 lbs/gal of paint, the full length and width of line and pavement markings.
- F. Begin striping operations no later than 24 hours after ordered by the Engineer.
- G. At time of application apply lines and pavement markings only when the air and pavement temperature are:
 - 1. 50 degrees F and rising for Acrylic Water Based Paint.
- H. Comply with Traffic Control Drawing TC16

3.3 CONTRACTOR QUALITY CONTROL

- A. Application Rate: Verify that the paint and beads are being applied within specified tolerances prior to striping.

3.4 REMOVE PAVEMENT MARKINGS

- A. Use one of these removal methods:
 - 1. Grinding
 - 2. High pressure water spray
 - 3. Sand blasting
 - 4. Shot blasting.
- B. Use equipment specifically designed for removal of pavement marking material.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 02771 M

**CURBS, GUTTERS, DRIVEWAYS, PEDESTRIAN ACCESS
RAMPS AND PLOWABLE END SECTIONS**

PART 1 GENERAL

Delete Paragraph A of Subsection **1.1 SECTION INCLUDES**, and replace with the following:

- A. Material and procedures for construction of curbs, gutter transitions, driveways, pedestrian access ramps, plowable end sections and curb end sections.

PART 2 PRODUCTS

Add the following Subsection to **PART 2 PRODUCTS**:

2.5 DETECTABLE WARNINGS

- A. Detectable Warning Surface – In-line truncated dome pattern that meets the requirements of Standard Drawing GW5. Provide a dark color (black or charcoal) that visually contrasts with adjoining concrete surfaces. Acceptable products for installation are as follows:
 - 1. Detectable Warning Panels – Fiberglass, homogenous UV stable, integral color, skid resistant, non-glare finished panels.
 - 2. Stamped Concrete.
 - 3. Precast Concrete Pavers.

PART 3 EXECUTION

Delete Paragraph E from Subsection **3.3 FINISHING CONCRETE**.

Add the following to Subsection to **PART 3, EXECUTION**:

3.6 DETECTABLE WARNING SURFACE

- A. Panel Installation:
 - 1. Install panels directly on the cured concrete surface using adhesive and fasteners in accordance with manufacturer recommendations.
- B. Stamped Concrete Installation:
 - 1. Use color hardener and liquid stamp release agent in accordance with manufacturer's recommendations. Refer to Section 02776.
 - 2. Stamp detectable warning surface to produce a durable, consistent truncated dome pattern that meets the dimensional requirements as shown in Standard Drawing GW5.
- C. Precast Concrete Paver Installation:
 - 1. Construct as shown on the plans. Ensure the surface is even, and there is a tight fit between pavers.
 - 2. Cut pavers to fit the angles shown on the pedestrian ramp detectable warnings area.

END OF SECTION

**SPECIAL PROVISION
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SECTION 02776 M

CONCRETE SIDEWALK, MEDIAN FILLER, AND FLATWORK

PART 1 GENERAL

Add the following paragraph to Subsection **1.1 SECTION INCLUDES**:

- B. Materials and procedures for constructing a concrete paved detention basin spillway at the North Ogden Detention Basin.

Add the following paragraphs to Subsection **1.2 RELATED SECTIONS**:

- I. Section 02316: Roadway Excavation.
- J. Section 02771: Curbs, Gutters, Driveways, Pedestrian Access Ramps and Plowable End Sections

PART 2 PRODUCTS

Add the following paragraph to Subsection **2.1 PORTLAND CEMENT CONCRETE**:

- D. Spillway: Class AA(AE) without pigment coloring material.

PART 3 EXECUTION

Add the following Subsection to **PART 3 EXECUTION**:

3.5 SPILLWAY

- A. Construct spillway as shown in the Plans.
- B. Place spillway excavation in the southeast corner of the existing detention basin. Coordinate location with North Ogden City.

END OF SECTION

**SPECIAL PROVISION
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SECTION 02777 S

STAMPED COLORED CONCRETE

PART 1 GENERAL

1.1 RELATED SECTIONS

- A. Materials and procedures for placing stamped concrete.

1.2 RELATED SECTIONS

- A. Section 03055: Portland Cement Concrete.
- B. Section 05832: Expansion Joint.
- C. Section 02721: Untreated Base Course.
- D. Section 03390: Concrete Curing.
- E. Section 02316: Roadway Excavation.
- F. Section 03310: Structural Concrete.
- G. Section 03392: Penetrating Concrete Sealer

PART 2 PRODUCTS

2.1 PORTLAND CEMENT CONCRETE

- A. Class AA(AE) per Table 3 in Section 03055.

2.2 EXPANSION JOINT FILL

- A. Use preformed material as per paragraph 2.3: Rigid Plastic Foam, Section 05832.

2.3 UNTREATED BASE COURSE

- A. Refer to Part 2, Section 02721.

2.4 COLORING AGENT

- A. Use high purity, chemically-inert, unfading and alkali-fast synthetic pigment coloring material. Color to match Bayferrox Salsa Red (4 lbs CC16) or approved equal.

2.5 CURING COMPOUND

- A. Per paragraph 2.2: Curing Compound for Portland Cement Concrete Pavement, Section 03390.

PART 3 EXECUTION

3.1 BASE

- A. Complete excavation per Section 02316.
- B. Place untreated base course per Part 3.2, Section 02721.

3.2 FORM PLACEMENT

- A. Use forms (wood, metal, reinforced fiberglass, or plastic) free of warps or bends.
- B. Anchor forms securely in place.

3.3 CONCRETE COLORING

- A. Use a single source material pit for aggregate and sand to maintain color consistency.
- B. Provide color samples to the Engineer for approval before purchasing color pigment.
- C. Provide a poured 2' by 2' sample, stamped with the pattern and indicate the amount of coloring agent used per sack (94 lb. bag) of concrete for approval before placing any concrete.
- D. Mix color pigment in the concrete according to pigment manufacturer's specifications.

3.4 CONCRETE PLACEMENT

- A. Place concrete per paragraph 3.5, Placing Concrete, Section 03310, 4" thick minimum. While pouring and finishing concrete, cover adjacent sidewalks, drives, and curb and gutters.
- B. Dampen the untreated base course before concrete placement.

3.5 CONCRETE FINISHING

- A. Stamp colored concrete with a 4" by 8" running bond pattern.
- B. Round all edges to a 1/2" radius.

3.6 JOINTS

- A. Expansion Joints:
 - 1. Place expansion joints to align with sidewalk expansion joints.
 - 2. Use 1/2" thick, premolded, expansion joint filler.

3.7 CONCRETE CURING AND PROTECTION

- A. Cure the surface per Section 03390.
- B. After curing, seal the surface per Section 03392.

END OF SECTION

**SPECIAL PROVISION
SP-0134(2)11**

SECTION 02813 S

RE-ESTABLISH SPRINKLER SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Restore residential/commercial sprinkler irrigation systems that are impacted by work on this project.

1.2 RELATED SECTIONS

- A. Section 02922 - Seed, Turf Seed, and Turf Sod.

PART 2 PRODUCTS

2.1 EXISTING PRODUCTS

- A. Salvage existing sprinkler system components for relocation. If the components are damaged in the process of being salvaged or if they are not capable of providing a functional system, replace them with new components of equal value. Do not salvage existing pipe.

2.2 MATERIALS

- A. Schedule 40 Polyvinyl Chloride (PVC) Pipe.

PART 3 EXECUTION

3.1 EXAMINATION

- A. The drawings do not show existing sprinkler system components but they do indicate locations where system impacts are anticipated. Verify construction impacts to residential and commercial sprinkler systems and determine appropriate relocation of the components.

3.2 PREPARATION

- A. If construction within the right-of-way impacts an existing irrigation system, notify the owner that their system will be impacted and coordinate how the work will be accomplished and when the work is to begin so that the owners can be prepared for the system to be turned off.

3.3 INSTALLATION

- A. Minimize disturbance to the owner's property and sprinkler system. Coordinate scheduling of restoration to minimize the downtime of their system.
- B. Excavate, relocate, repair, and install sprinkler pipes, heads, valves and wires to provide a fully functional sprinkler system.
- C. Test the system for leaks before backfilling.
- D. Backfill and settle trenches and provide finish grading.

3.4 FIELD QUALITY CONTROL

- A. Obtain a signed letter of acceptance from the property owner upon completion of the work on their sprinkler system.

END OF SECTION

**SPECIAL PROVISION
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SECTION 02822 M

RIGHT-OF-WAY FENCE AND GATE

PART 1 GENERAL

Add the following paragraph to Subsection **1.1 SECTION INCLUDES**:

- B. Materials and procedures for relocating right-of-way fencing.

PART 3 EXECUTION

Add the following Subsection to **PART 3 EXECUTION**:

3.3 RELOCATING FENCE

- A. Coordinate relocation of fences with the property owner.
- B. Provide temporary right-of-way fencing to secure the property while the permanent fence is down.
- C. Detach the fence wire, rails, and all other usable hardware.
- D. Construct the permanent fence in its final location using the material from the disassembled fence. Use existing fence posts or posts of equal material and workmanship as approved by the Engineer.

END OF SECTION

**SPECIAL PROVISION
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SECTION 02861 M

PRECAST RETAINING/NOISE WALLS

PART 1 GENERAL

Add the following paragraph to Subsection **1.1 SECTION INCLUDES**:

- B. Materials and procedures for constructing precast noise using precast panels with a random rectangular stone form-liner.

Delete Paragraph B of Subsection **1.4 SUBMITTALS** and replace with the following:

- B. Precast Concrete Panels: Submit for approval samples of the random rectangular stone pattern finish before casting the panels.

PART 2 PRODUCTS

Add the following paragraphs to Subsection **2.1 MATERIALS FOR PRECAST NOISE WALLS AND RETAINING WALLS**:

- K. Form-liner material: Use a form-liner for the random rectangular stone pattern capable of producing uniform texture and patterns and capable of releasing the sculpted concrete surface without damage.
- L. Release Agent: Use a non-petroleum release agent meeting all EPA requirements. The release agent may not impart color, tint or texture to the cured surface. Use a release agent not detrimental to concrete strength or durability.
- M. Form-liner: Securely attach the form-liner elements to the backing form to assure uniformly straight panels and consistent finished appearance.

Delete Subsection **2.5 PRECAST CONCRETE PANELS** and replace with the following:

2.5 PRECAST CONCRETE PANELS

- A. Cast the panels to ensure required tolerances regarding all dimensions.
- B. Provide a panel thickness of 5-inches.
- C. Cast the concrete panels in rigid, non-yielding forms. Ensure that the sides of the panels do not deviate from a straight line by more than 1/8-inch.
- D. Achieve uniformity of appearance, color, texture, and pattern. Replace panels which show discoloration from release agents or curing agents.
- E. Remove the panels as soon as they are sufficiently strong.
- F. All panels must be free from forming defects and handling damage to the faces and edges. Replace panels that are cracked or damaged and panels that do not match in color.
- G. Permanently stamp panel identification number supplied by Engineer in the top surface of one lifting device prior to casting. Use panels which are not permanently marked.
- H. Place the panels in the posts with the form-liner side facing the highway.
- I. Use only concrete panels for which all surfaces are clean, dry, fully cured, structurally solid, sound and free from scale or foreign material.
- J. Assume sole responsibility for erection equipment and methods. Maintain safe vertical clearances to overhead power lines during all panel handling activities.
- K. Coordinate with the Region 1 Landscape Architect (801-620-1624) prior to construction concerning noise wall appearance, surface colors, textures and patterns.

Add the following Subsections to **PART 2 PRODUCTS**:

2.6 FORM-LINED NOISE WALL SURFACE

- A. On the traffic side of wall provide a stone field framed by 1-foot concrete border on the top panel and along the sides of all panels.
- B. Provide a maximum relief of 3/4-inch from the plain concrete frame and from the face of stones to bottom of grooves.

- C. Grooves depicting mortared joints must be true and straight, of consistent width and depth.
- D. Achieve stone facings having smooth, solid surfaces free of voids, air pockets, etc.
- E. No form-liner joints may be apparent to the stone faces.
- F. Horizontal construction joints between panels must fall in the mortared joints of the stone patterns and may not cross any stone facing.
- G. Use a form-liner material and pattern which allows no form-liner joints to show on the finished concrete surface.

2.7 NON-TRAFFIC WALL SURFACE

- A. Use same pattern on both sides of the panel.

PART 3 EXECUTION

Add the following Subsections to **PART 3 EXECUTION**:

3.8 REQUIRED SUBMITTALS

- A. Submit drawings of the noise wall elevation layout to the Engineer for approval.
- B. Submit samples of the stone pattern and concrete finish for the form-liner side, and samples of the non-traffic surface finish to the Engineer for approval prior to casting panels.
- C. Submit details and specifications for form-liner(s), backing, release agents, curing agents, and production processes.
- D. Submit three sample wall panels to the Engineer for approval prior to construction of any permanent wall panels. Construct the sample panels using the identical concrete and casting processes that will be used for the permanent wall panels. Include the installation of lifting devices in the sample panels. If changes in pattern or texture are required, submit new sample panels to the Engineer for approval before constructing any permanent panels.
- E. Submit details for optional surface treatments such as stain, paint, etc. Outline the benefits and drawbacks of surface treatments. Provide the application rates, application methods, material costs, and service life.

- F. Submit instructions for treating or covering graffiti which may occur on the treated (or untreated) panel surfaces.

END OF SECTION

**SPECIAL PROVISION
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SECTION 02873 S

**CONSTRUCTION WORK OVER QUESTAR GAS COMPANY
HIGH-PRESSURE NATURAL GAS LINES**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Requirement for work performed on or near all Questar Gas Company steel high-pressure (HP) and intermediate high-pressure (IHP) natural gas pipelines.

1.2 RELATED SECTIONS

- A. Section 00555: Prosecution and Progress.
- B. Section 00727: Control of Work.
- C. Section 02221: Remove Structure and Obstruction.
- D. Section 02316 M: Roadway Excavation

1.3 REFERENCES

- A. Attachment A: Construction Work over Questar Gas Company High-Pressure Natural Gas Lines

PART 2 PRODUCTS

2.1 QUESTAR GAS COMPANY APPROVED MATERIALS

- A. Use materials in accordance with Questar Gas Company specifications included in Attachment A.

PART 3 EXECUTION

3.1 PREPARATION

- A. Coordinate all waterline work with Questar Gas Company in accordance with Attachment A.

3.2 INSTALLATION

- A. Perform work on or near all Questar Gas Company steel high-pressure (HP) and intermediate high-pressure (IHP) natural gas pipelines in accordance with Attachment A.

END OF SECTION

ATTACHMENT A
OF
SPECIAL PROVISION SECTION 02873 S
CONSTRUCTION WORK OVER QUESTAR GAS COMPANY
HIGH-PRESSURE NATURAL GAS LINES

The information included in Section 02873 S - Attachment A, Construction Work Over Questar Gas Company High-Pressure Natural Gas Lines is provided for the convenience of the Contractor. It is the Contractor's responsibility to obtain and comply with the requirements of the Questar Gas Company standards.

**SPECIFICATION FOR CONSTRUCTION WORK
OVER QUESTAR'S NATURAL GAS LINES**
(2700 N, Pleasant View)

1.0 General Requirements

- 1.1 Questar shall be notified 48 hours in advance and approval given prior to any work over its natural gas lines. For high-pressure lines, notify Dwaine Zobell at 324-3370. For intermediate high-pressure lines, notify Bart Lindsay at 395-6751.
- 1.2 Questar will assign an inspector to the project who will locate and mark its gas lines. The inspector will also coordinate any necessary relocation of the lines.

2.0 Vehicle/Equipment Crossings

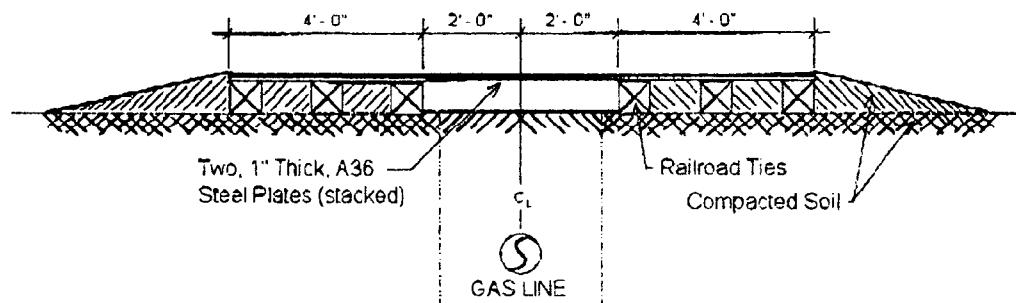
- 2.1 When vehicles/equipment are over and within 2'-0" (horizontal) of the gas line, the following minimum depths of cover shall be provided. The cover shall be undisturbed or compacted soil. The minimum depths are specified below.

Combined Axle Load**	MINIMUM DEPTH OF COVER*		
	10.750" OD IHP, 0.219" WT	6.625" OD HP/IHP, 0.219" WT	4.500" OD IHP, 0.219" WT
16,000 lbs (H10)	2' - 0"	1' - 6"	1' - 6"
24,000 lbs (H15)	2' - 6"	2' - 0"	1' - 6"
32,000 lbs (H20)	3' - 0"	2' - 0"	1' - 6"
40,000 lbs	3' - 6"	2' - 6"	1' - 6"
48,000 lbs	4' - 0"	2' - 6"	2' - 0"
56,000 lbs	4' - 6"	2' - 6"	2' - 0"
64,000 lbs	5' - 0"	3' - 0"	2' - 0"
88,000 lbs	6' - 0"	3' - 6"	2' - 6"
112,000 lbs	7' - 0"	4' - 0"	2' - 6"

* Measured from the top of pipe to the ground surface.

** Single axle load or total combined load for tandem axles.

- 2.2 If the minimum depth of cover can not be provided or the load exceeds that listed in the table above, the gas line shall be bridged (4' - 0") to displace the load. A design for a steel plate bridge crossing is presented below.



STEEL PLATE BRIDGE CROSSING

3.0 Excavation Over Gas Line

- 3.1 When excavating within 3'-0" (horizontal) of the gas line, a laborer (contractor provided) shall be present at all times to spot the line.
- 3.2 Excavation within 2'-0" (horizontal) of the gas line shall be done with a trackhoe or shovel working either from the side or straddling the line.
- 3.3 The excavator's bucket shall have a flat cutting edge (no teeth) and work no closer than 1'-0" around the outside of the gas line.
- 3.4 Excavation within 1'-0" of the outside of the gas line shall be done by hand.

4.0 Backfill & Compaction Over Gas Line

- 4.1 Backfill material placed around and within 1'-0" of the gas line shall be sand that meets or exceeds AASHTO M6 requirements.
- 4.2 Compaction of the first 2'-0" of fill over the gas line shall be done with lightweight equipment (< 3,000 lbs) possessing smooth plates or drums.
- 4.3 Vibratory compaction of fill with roller compactors shall not be performed within 2'-0" (horizontal) of the gas line, regardless of its depth.
- 4.4 Vibratory compaction of asphalt over the gas line will be allowed.

END OF ATTACHMENT

**SPECIAL PROVISION
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SECTION 02922 M

SEED, TURF SEED, AND TURF SOD

PART 3 EXECUTION

Add the following paragraph to Subsection **3.3 DRILL METHOD**:

- K. With the exception of the wetland mitigation area, all seeding on the project is paid under the item Drill Seed. However, small portions of the project may require broadcast seed due to slopes steeper than 3:1 or areas inaccessible or too small to drill. The drill seeding method is to be used wherever possible.

END OF SECTION

**SPECIAL PROVISION
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SECTION 02969 S

OPTIONAL USE OF RECLAIMED ASPHALT PAVEMENT

Replace sections 02968 and 02969 in their entirety with the following:

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Option to incorporate Reclaimed Asphalt Pavement (RAP) materials into hot mix asphalt pavement, dense-graded material only.

1.2 RELATED SECTIONS

- A. Section 02741: Hot Mix Asphalt (HMA).
- B. Section 02745: Asphalt Materials.
- C. Section 02746: Hydrated Lime.
- D. Section 02961: Rotomilling.
- E. Section 509 of the UDOT Minimum Sampling and Testing Guide: Asphalt Binder Quality Management Plan.
- F. Section 909: Part 8, UDOT Materials Manual: Hamburg Wheel Track Testing of Compacted Bituminous Mixtures.
- G. AASHTO T-164: Quantitative Extraction of Bitumen from Paving Mixtures.
- H. AASHTO T-170: Recovery of Asphalt from Solution by Abson Method.
- I. AASHTO M-320: Performance Graded Asphalt Binder.

1.3 SUBMITTALS

- A. Quality Control Plan.
 - 1. Submit the proportion of materials from each of the RAP stockpiles intended to be used in the project.
 - 2. Submit the sampling and testing plan for the project.
 - 3. Provide for testing, by an AMRL accredited laboratory, of the reclaimed material and the total mixture at no additional cost to the Department.
 - 4. Submit for Engineer approval.

PART 2 PRODUCTS

2.1 PG BINDER

- A. Select and supply a standard AASHTO M320 PG Binder meeting the requirements of Sections 02745 and 509, in accordance to Table 1.
- B. Perform Department Quality Assurance testing on the supplied grade of standard PG Binder in accordance to Section 509.

2.2 MIX DESIGN

- A. Obtain Engineer's approval for the use of RAP in the hot mix asphalt.
- B. Use up to 30 % RAP by total weight in the hot mix asphalt, in accordance to Table 1.
- C. Provide the following for each RAP Stockpile:
 - 1. Extracted Gradation
 - 2. Asphalt Content
 - 3. SSD Specific Gravity of Extracted RAP
- D. Provide the following for the RAP Material combined in proportions for the intended production of HMA:
 - 1. Performance Grade of recovered asphalt binder.
 - a. Use AASHTO T-164, Method E, with reagent grade Trichloroethylene, and AASHTO T-170 to recover the asphalt binder.

- b. Determine the performance grade of the recovered binder in accordance with AASHTO M-320 with the following modification:
 - (1) PAV aging is not required before testing for fatigue and low temperature cracking.
 - E. Select the percentage of RAP by total weight in the hot mix asphalt and the standard, virgin asphalt binder grade meeting Section 02745, using Table 1:

Table 1
Binder Selection Guidelines and Total Allowable RAP for RAP Mixtures

Recovered RAP Asphalt Binder Grade	Desired RAP %	Recommended Virgin Asphalt Binder Grade
PGXX-22 or lower	< 20%	No Change in the Design Grade of the Asphalt Binder
	20 -30 %	Select Virgin Binder one grade softer than normal (e.g. select a PG58-40 if a PG64-34 is the design grade
PGXX-16	< 15 %	No Change in the Design Grade of the Asphalt Binder
	15 - 25 %	Select Virgin Binder one grade softer than normal (e.g. select a PG58-40 if a PG64-34 is the design grade
PGXX-10 or higher	< 10 %	No Change in the Design Grade of the Asphalt Binder
	10 - 15 %	Select Virgin Binder one grade softer than normal (e.g. select a PG58-40 if a PG64-34 is the design grade

- F. Meet all the requirements of Section 02741 and the following:
 - 1. Average wheel impression not to exceed 10 mm in 20,000 passes when tested in accordance with Hamburg Wheel Track Testing of Compacted Bituminous Mixtures, UDOT Materials Manual of Instruction Section 990.
 - a. Provide to UDOT Central Laboratory sufficient mix to perform test. Allow ten days for results.

2. Meet all the requirements of Aggregate Properties of Section 02741 for the virgin aggregate portion of combined virgin and RAP aggregate.
- G. Complete the mix design for the combined virgin and RAP materials following Superpave volumetric mix design procedures. Use an AMRL accredited laboratory for the design.
- H. Provide the following for the combined virgin and RAP materials:
 1. Gradation
 2. Asphalt content
 3. RAP content

PART 3 EXECUTION

3.1 RECLAIMED MATERIAL

- A. Crush or screen the reclaimed material to be used for recycle to pass a 1-1/2 inch sieve.
 1. Construct stockpile platforms in such a way to prevent intrusion of subgrade materials into RAP.
 2. Provide adequate drainage for the stockpile site.
 3. Use separate cold feed bins for each stockpile.
 4. Use screened reclaimed material free of organic materials, soil, or other foreign substances.

END OF SECTION

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SECTION 03310 M

STRUCTURAL CONCRETE

PART 1 GENERAL

Add the following paragraph to Subsection **1.1 SECTION INCLUDES**:

- B. Materials and procedures for constructing miscellaneous and non-standard drainage system boxes and structures constructed of cast-in-place concrete, including irrigation overflow boxes and outlet structures.

Add the following paragraphs to Subsection **1.2 RELATED SECTIONS**:

- L. Section 02611: Diversion Box Gate and Frame.
- M. Section 02635: Grates, Solid Covers, Frames, and Manhole Steps.

PART 2 PRODUCTS

Add the following Subsections to **PART 2 PRODUCTS**:

2.12 DIVERSION BOX GATE AND FRAME

- A. Refer to Section 02611.

2.13 GRATES, SOLID COVERS, FRAMES, AND MANHOLE STEPS

- A. Refer to Section 02635.

PART 3 EXECUTION

Add the following Subsections to **PART 3 EXECUTION**:

3.18 DIVERSION BOX GATE AND FRAME

- A. Install per Section 02611.

3.19 GRATES, SOLID COVERS, FRAMES, AND MANHOLE STEPS

- A. Install per Section 02635.
- B. For boxes placed in the traffic lanes, orient the box so the cover avoids the wheel path as much as possible.

END OF SECTION

**SPECIAL PROVISION
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SECTION 03320 S

BOX CULVERT ALTERNATIVES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. The plans include situation and layout, and construction drawings for a single cell, cast-in-place concrete box culvert for the Western Irrigation Canal crossing on 2700 North, Structure No. E-2515. The Contractor is required to select from the following barrel alternatives:
 - 1. Cast-in-place concrete box culvert as shown in the Plans.
 - 2. Post tensioned, pre-cast concrete box culvert as specified in Section 02645S.

1.2 RELATED WORK

- A. Section 00555: Prosecution and Progress
- B. Section 00725: Scope of Work.
- C. Section 00727: Control of Work.
- D. Section 01554: Traffic Control.
- E. Section 02056: Common Fill.
- F. Section 02142: Dewatering.
- G. Section 02317: Structural Excavation.
- H. Section 02324: Compaction.
- I. Section 02330: Embankment.
- J. Section 02645S: Precast Concrete Box Culvert.

- K. Section 03055: Portland Cement Concrete.
- L. Section 03210: Structural Concrete.
- M. Section 03211: Reinforcing Steel and Welded Wire.
- N. Section 03310: Structural Concrete.
- O. Section 03390: Concrete Curing.
- P. Section 03412: Prestressed Concrete.

1.3 SUBMITTALS

- A. Shop Drawings: Submit in accordance with Specification Section 02645S.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Cast-in-place concrete box culvert barrel alternative: Section 03310.
- B. Post tensioned, pre-cast concrete box culvert barrel alternative: Meet the requirements of Section 02645S.

2.2 BOX CULVERT BARREL SELECTION

- A. At the preconstruction conference, declare choice of box culvert barrel construction.

PART 3 EXECUTION

3.1 PREPARATION

- A. Refer to Section 00727 M to coordinate utility locations.
- B. Protect all materials during delivery and installation. Replace any damaged materials.
- C. Verify position of nearby utilities and relocate utilities in conflict with the new construction.

- D. Prepare and submit to the ENGINEER for approval an emergency safety and repair plan for accidental damage caused to existing utilities resulting from boring operations (i.e., high pressure natural gas, high pressure petroleum, fiber optic, water, or sewer).

3.2 INSTALLATION

- A. Cast-in-place concrete box culvert barrel alternative: Comply with Section 03310.
- B. Post tensioned, pre-cast concrete box culvert barrel alternative: Comply with Section 02645S.

END OF SECTION

**SPECIAL PROVISION
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SECTION 13553 M

ATMS CONDUIT

PART 3 EXECUTION

Replace Paragraph G of Subsection **3.1 INSTALLATION** with the following:

- G. Install all conduit by boring, jacking, or drilling. Any trenching for conduit must be approved by the Engineer. Place conduit at least 5 feet deep, but no greater than 15 feet deep.

Replace Subsection **3.5 REPAIR/RESTORATION** with the following:

3.5 REPAIR/RESTORATION

- A. Restore all areas, including landscaping, concrete pavement, asphalt, finished curbs and gutters, box culverts, sewers, underground water mains, sprinkler systems, sidewalks, concrete flatwork, textured or decorative surfaces that were damaged during conduit and junction box installation.
- B. Coordinate with local utilities for utility repair. Advise the Engineer of all repairs.
- C. The repair and restoration work outlined above is to be done at the sole expense of the Contractor.

END OF SECTION